HD IP Speed Dome Camera

IE Browser User's Manual

(for WindowsXP/2003/Win7/Vista)

Document edition:V4.3

The manual for: V2（5）.3.1.2 and above editions

Editions suit for IPC: HD IP Speed Dome Camera

Preface

Thank you for using our HD IP Speed Dome Camera. The product is developed by using Megapixel Progressive Scan CCD or CMOS sensors and high performance multimedia processor, choosing the embedded Linux Operating System, supporting several kinds of video coding protocols, such as H.264 Main Profile、Baseline Profile、MJPEG and so on. This product also support the audio coding protocol of G.726, has advanced megapixel technology. It used SD card for storing pictures and records, and support snap, can communicate with standard IPTV system .The HD IP speed dome camera can record, deal with image, transport 、 store and manage record, its designed idea is based on All in one and Ready to go, which is convenience for users to install, use, and maintain it.

The product is designed for high-end surveillance markets that require high image definition, including: highways, banks, telemedicine, security checkpoints, etc.

Statement:

Contents in this manual may be different from the edition that you are using. Should any unsolved problem occur given that the product is used according to this manual, please contact our technical support department or your product suppliers.

The content of this manual may be updated at irregular intervals without prior notice.

Readship:

This manual is suitable for engineers as follow:

- System planning person
- Support and maintenance person
- Administrator
- User

Notes:

- "IP Camera" mentioned in this manual refers to network camera, including box IP camera, dome IP camera, infrared box IP camera, speed dome IP camera,ect.
- Click: Press the left mouse button once.
- Double-click: Press the left mouse button twice.
- "**[ ]**":Window name, menu name and datasheet.

Modify record：

Recording the corresponding update, the latest document include all of the content in previous editions.

Modify date	Edition	Explanation
2010-12-1	V4.0	According to the write standards of our company, typesetting the document again.
2011-3-11	V4.1	Modify the user manual.
2011-9-28	V4.2	Update version, modify the user manual.
2012-3-6	V4.3	Update version, modify the user manual.

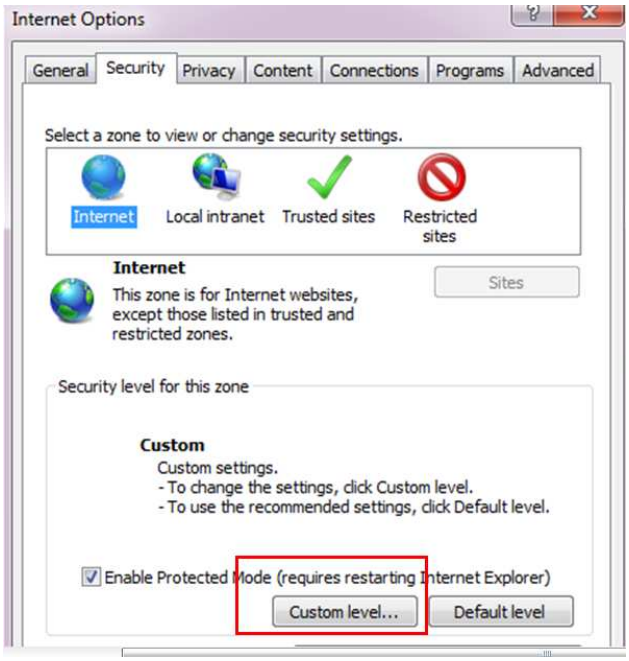
Table of Contents

Set the IE browser 6
1 Download and install ActiveX 7
2 Login 8
3 Live Preview 8
4 Record Playback 11
5 Set System Parameters 14
5.1 Local config 14
5.2 Remote config 15
5.2.1 Audio Setting 15
5.2.2 Video Settings 15
5.2.2.1 Text Overlay 15
5.2.2.2 Video Coding 16
5.2.2.3 Video Mask 18
5.2.2.4 Picture Parameter 19
5.2.3 Network Settings 20
5.2.3.1 Basic Setting 20
5.2.3.2 LAN Setting 20
5.2.3.3 PPPOE Setting 21
5.2.3.4 UPNP setting 22
5.2.3.5 Email setting 23
5.2.3.6 FTP setting 24
5.2.3.7 DDNS setting 25
5.2.3.8 VPN setting 26
5.2.3.9 RTSP setting 26
5.2.3.10 Public IP noticed by email 27
5.2.3.11 Connect setting 28
5.2.3.12 Mobile setting 28
5.2.4 Storage Settings 30
5.2.4.1 Device Setting 30
5.2.4.2 Record Setting 31
5.2.4.3 Snap Setting 32
5.2.5 Alarm Settings 33
5.2.5.1 Motion detection 33
5.2.5.2 Sensor Setting 35
5.2.5.3 Failure Setting 36
5.2.6 Dome Camera 37
5.2.6.1 Camera Setting 37
5.2.6.2 PTZ Setting 47
5.2.7 System Setting 49
5.2.7.1 System Info 49
5.2.7.2 System Time 49
5.2.7.3 User Manage 50
5.2.7.4 Upgrade 51
5.2.7.5 Restore 52
5.2.7.6 Reboot 52
Appendix 1 Network Interface of IP Camera 53
Appendix 2 Default Network Parameters 53
Appendix 3 Apply for DDNS domain name service 54
Appendix 4 Visit IP camera under different network environments 56
Appendix 5 HD IP camera Special Preset points Function 63
Appendix 6 FAQs 64

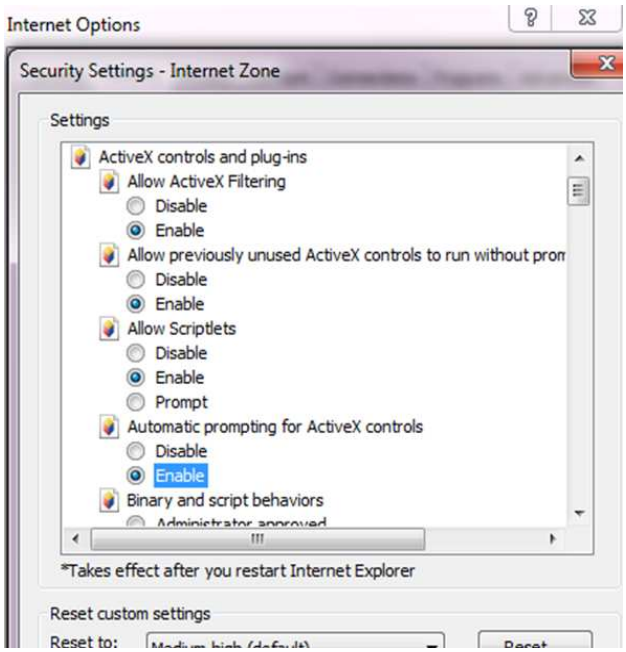
Set the IE browser

If you visit IP camera for the first time, Please set the IE browser frist.

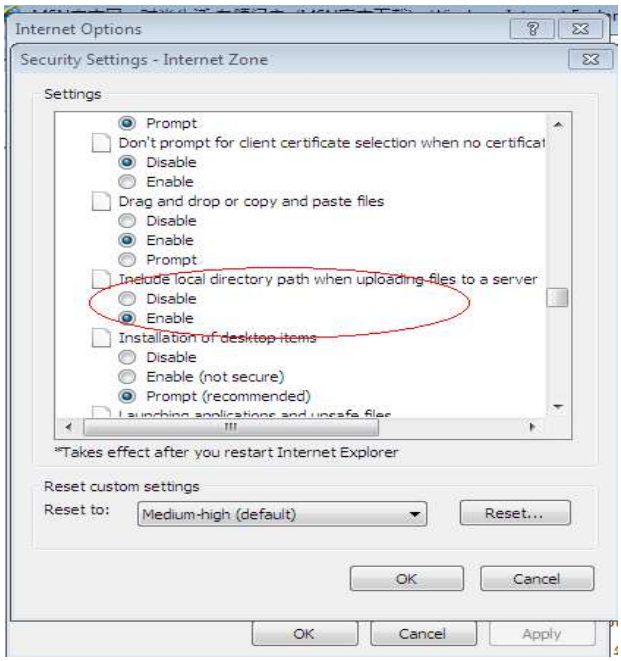
Setting method:Open the IE browser, click Ineternet Option into the "Security" page, click the "Custom Level",then follow steps to set the IE browser.(See Figure a b c)



a



b



c

1 Download and install ActiveX

You need to install ActiveX Control when you visit IP camera for the first time through IE browser.

ActiveX installing method:

Download installation

Input the IP address of IP camera in Internet Explore to enter into login page(see Figure 1),

Click [File] to download the ActiveX:

User Login
User Name: admin
Password:
Login
Cancel
For initial access or issues with viewing the camera image, please click the link below to download the ActiveX setup file. Once the file is decompressed and installed, please login to the camera again. After installing the OCX successfully,please delete cookies in computer when user logins error,IE tool-->Internet option-->browser history (delete temporary file,history,COOKIE...) or confirm the username and password.
Download OCX Setup File File

Figure 1

File download dialogue box pops up, click [Run] or [Save] to download ActiveX, after download it , double-click the downloaded file "xdview.exe" to install it. After installation completes, a message "Register OCX success！ " will appear(see Figure 2).

If the IE was opened ,there will pop up a dialogue box (see Figure 3),click [ok] then all of the opened IE will be closed.

Figure 2

Figure 3

2 Login

Reopen Internet Explorer after ActiveX installation completes, input IP address of the IP camera to turn to login page, enter username (default setting is admin) and password (default setting is admin), click login to enter into main interface(see Figure 4):

IP CAMERA
Real-time IP Camera Monitoring Sytem
User Login
User Name: admin
Password:
Login
Cancel
For initial access or issues with viewing the camera image, please click the link below to download the ActiveX setup file. Once the file is decompressed and installed, please login to the camera again. After installing the OCX successfully,please delete cookies in computer when user logins error,IE tool-->Internet option-->browser history (delete temporary file,history,COOKIE...) or confirm the username and password.
Download OCX Setup File File

Figure 4

3 Live Preview

See Figure 5 for the interface of "Live Preview"

Figure 5

In the Liveview interface, users can do operations like Snapping, Recording, Playback, Call, Listen, Clear Alarm, Log Search, Local Zoom of Image, Full-screen Viewing, PTZ and

Lens Control.

[Snap]: click "Snap", snap the current image and save it in .JPG format automatically to the storage directory of snapped images.

[Record]: Manual image recording, automatically record current images and save them in .264 format to the storage directory of recorded images after the recording function turned on.

Displayed status after recording starts:

[Playback]: Click "Playback", the playback page will pop up for searching and playback of recorded files or snapped pictures.

[Call]: After turn on the audio talkback switch, the talkback between PC and IP camera can be performed given that audio talkback device is installed to the IP camera. The displayed status after audio turns on:

[Listen]: After switch on the monitoring switch, PC can monitor the sound at the device end. The displayed status after monitoring starts :

[Alarm]: When there is an alarm, double-click [Alarm] to cancel the alarm manually.

[Log]: Allow users to search for operations and alarm log. The maximum capacity is 512 entries of message, when the number of entries exceeds 512, system will delete records of the earliest date automatically.

[Zoom In]: This feature allows the manual drag and drop of video display area to realize partial zoom in.

[Full Screen]: Display images in full-screen, right click to exit full screen mode.

[PTZ Control]: Allows four-directional rotation, automatic adjustment of PTZ rotation speed. When the time of the scanning motion, PTZ speed not affected by this restriction (see Figure 6).

[Lens Control]: Allows PTZ operations like Zoom, Focus, Aperture, Light, Clip, Preset set, and Preset Call(see Figure 7).

[Dome]:See Figure 8 for the interface of "Dome"

Preset No.: You can set, delete and call presets.

Note：Preset No.: **1** ～ **255**， Some of the preset number as a special function using(see appendix).

Figure Scan: Support two groups of figure scan. If you enable this function, it can record the operations of PTZ, but the operations don't include PTZ rotate automatically, preset tour, P&Z scan, PTZ reset, mostly special presets or call by menu.

PAN Flip: Rotate horizontally 180^0.

Zero Detection: If you set azimuth zero, the device will be rotated to there after power on and tests by itself when click this button. If you delete the azimuth zero, it will be rotated to the machine zero. You can set it in [Dome Camera]->[PTZ Setting].

Left/Right/Up/Down Limit: The dome can be only rotated in the range as you set when it is scanning.

Preset Tour 1/2: Call preset tour 1 or 2, you can set preset tour in [Dome Camera]->[PTZ Setting].

P&T SCAN: Call P&T scan, you can set preset tour in [Dome Camera]->[PTZ Setting].

Stop: Stop the PTZ's operation.

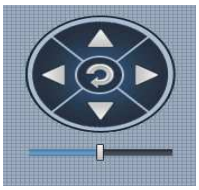


Figure 6

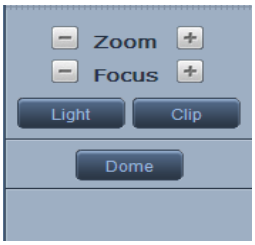
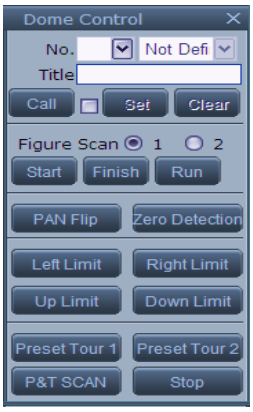


Figure 7



Figures 8

4 Record Playback

Click

enter into video playback page (see Figure 9).

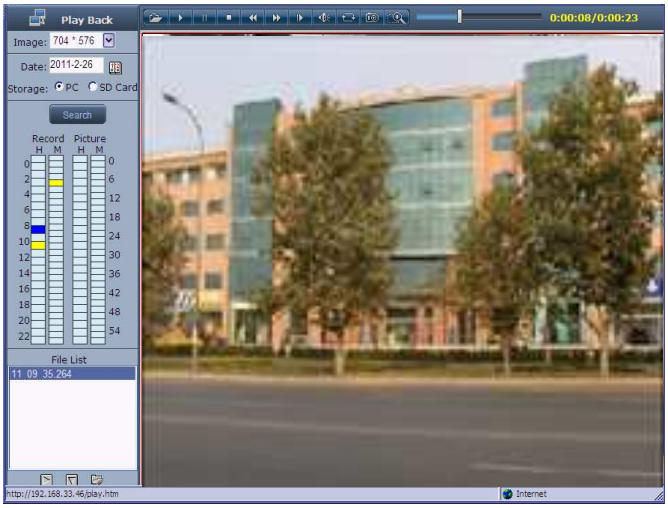


Figure 9

Users can search for recorded image files or snapped pictures in local PC or storage device according to date.

[Date]: Users can select certain date to perform recorded image file or snapped picture searching, click "date" button ,data selection page will pop up(see Figure 10):

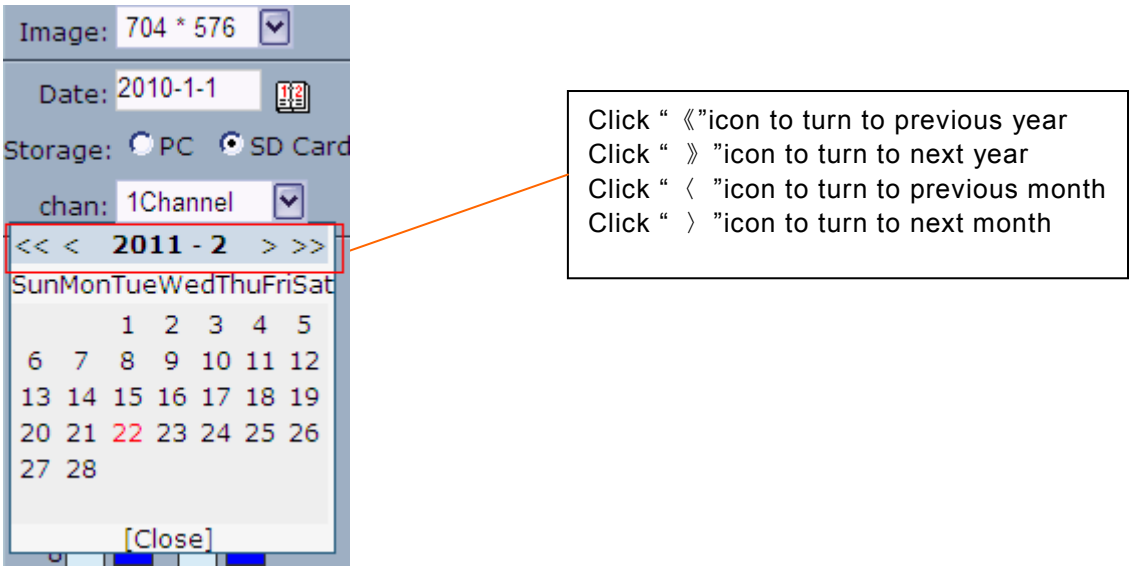


Image: 704 * 576
Date: 2010-1-1
Storage: PC SD Card
chan: 1Channel
<< < 2011 - 2 > >>
SunMonTueWedThuFriSat
1 2 3 4 5
6 7 8 9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28
[Close]
Click "《"icon to turn to previous year
Click " 》"icon to turn to next year
Click " 〈 "icon to turn to previous month
Click " 〉 "icon to turn to next month

Figure 10

[PC]: Users can select certain date to perform recorded image file or snapped picture (stored in local PC) searching.

[SD Card]: Users can select certain date to perform recorded image file or snapped picture (stored in device SD card) searching.

[File List]: Shows the recorded image files or snapped pictures searched in the File List.

The way to search for recorded image files or snapped pictures of a specific period(see Figure 11):

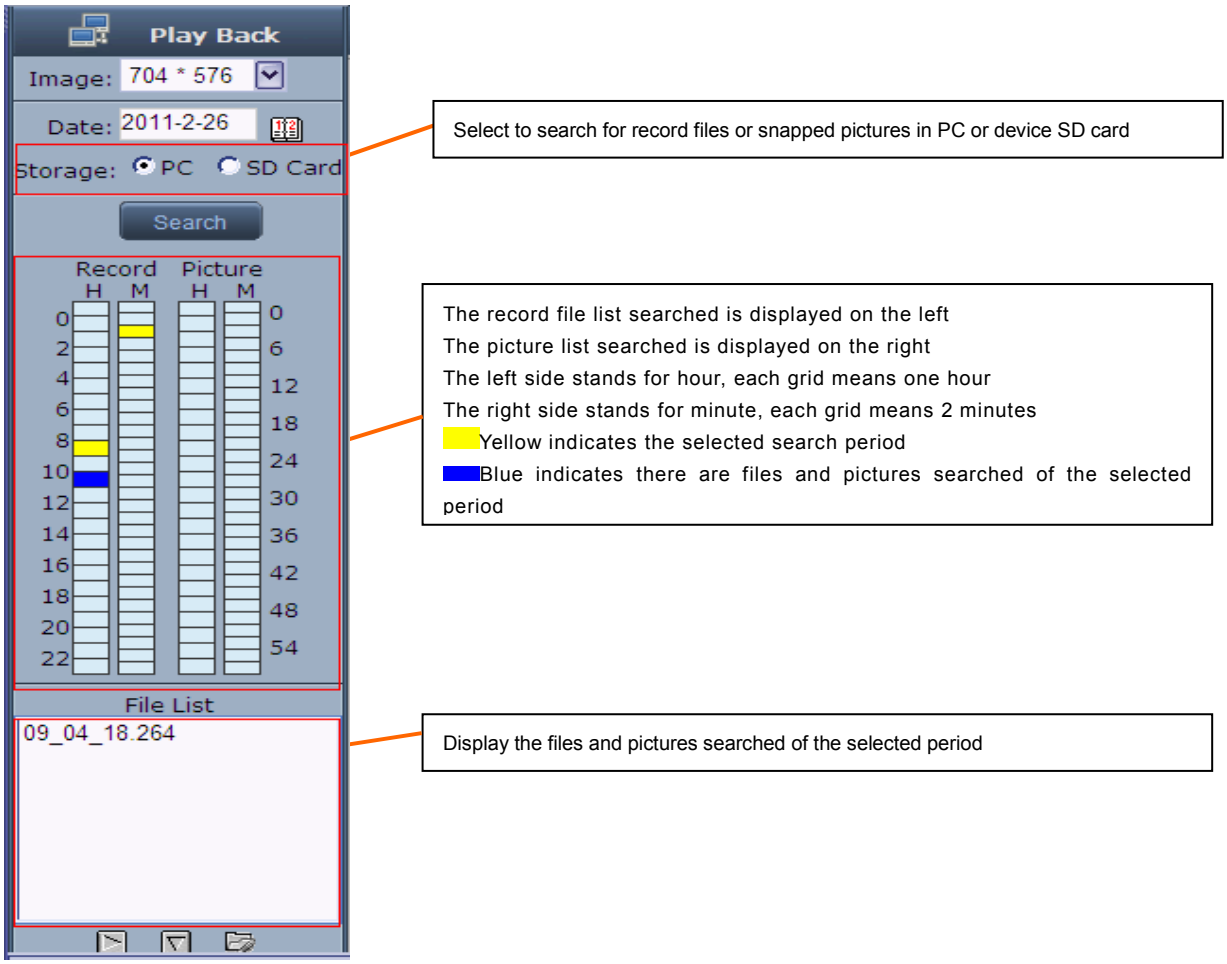

Play Back
Image: 704 * 576
Date: 2011-2-26
Storage: PC SD Card
Search
Record Picture
H M H M
File List
09_04_18.264
Select to search for record files or snapped pictures in PC or device SD card
The record file list searched is displayed on the left
The picture list searched is displayed on the right
The left side stands for hour, each grid means one hour
The right side stands for minute, each grid means 2 minutes
Yellow indicates the selected search period
Blue indicates there are files and pictures searched of the selected period
Display the files and pictures searched of the selected period

Figure 11

[Play]: Choose the recorded image or snapped picture in file list, right click the file or picture or click "play" button to play. The contents will be displayed in the right window, users can view the playing information and control the process(see Figure 12):

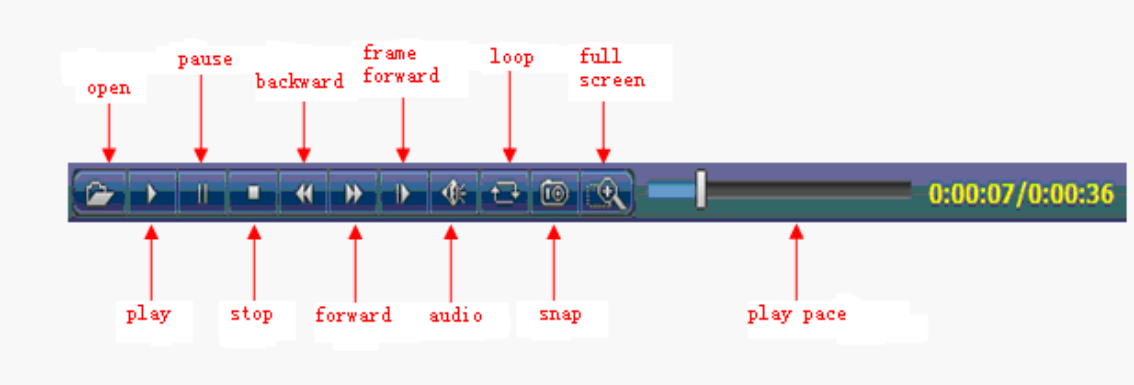


Figure 12

[Download]: Select the recorded files or snapped pictures searched from SD card in the

file list, click "download" button to download the files to PC.

[Download information]: Users can view the information downloaded after clicking "Download"(see Figure 13):

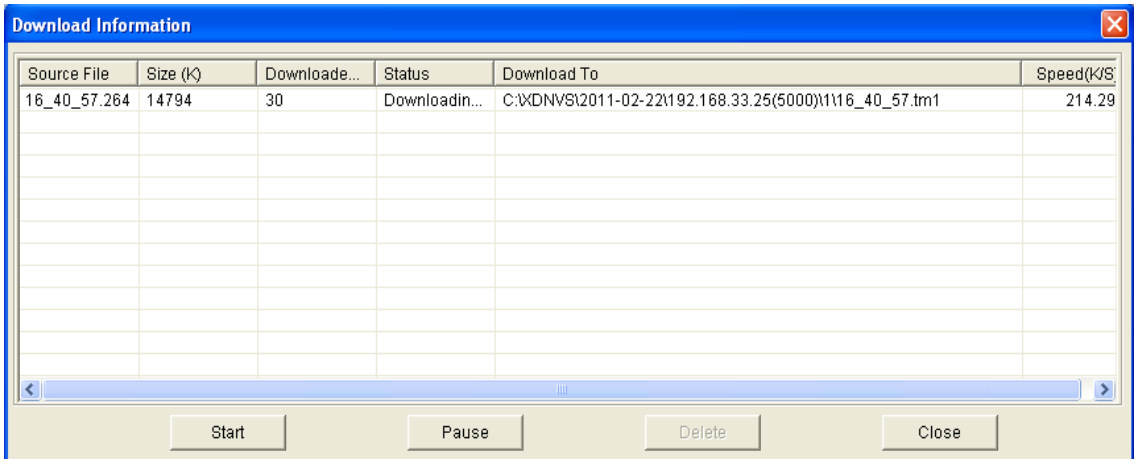


Figure 13

Click [Pause] to pause download manually，click [Start] to continue to download the unfinished files，click [Delete] to delete the downloaded files，click [Close] to close the download information interface.If you close the Download Information window and click ,you can continue to view the information about download.

5 Set System Parameters

5.1 Local config

See Figure 14 for the interface of "Local config":

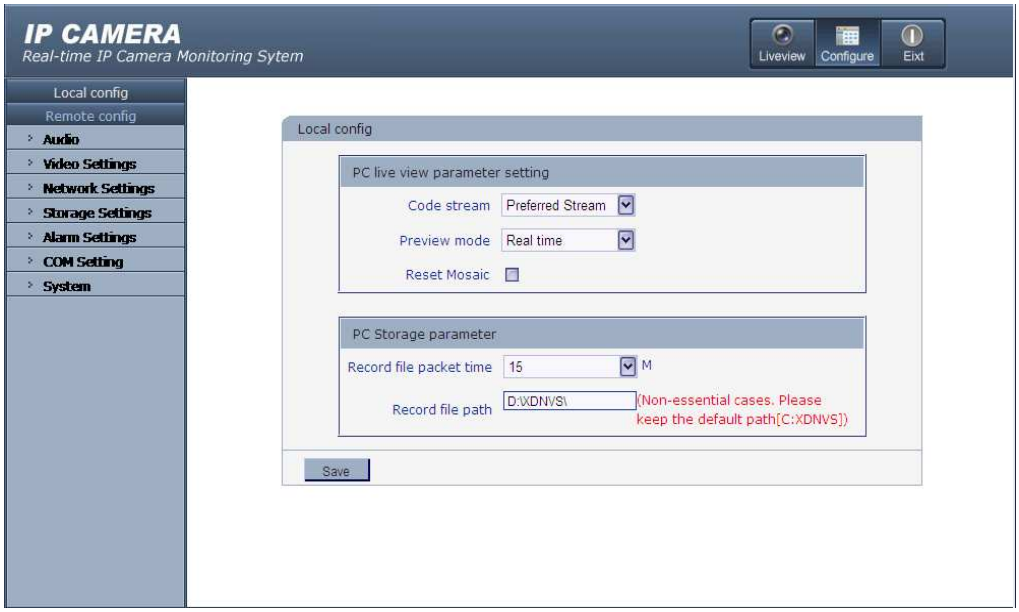


Figure 14

[PC live view parameter setting]

Code stream: set video stream for PC live preview, preferred stream and alternate stream are selectable. The parameters of preferred and alternate stream can be set up in [Video Settings].

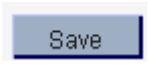
Preview mode: users can choose Real time priority or Fluency priority mode according to their needs.

Reset Mosaic: select this option to make image quality better, but CPU usage rate will be higher at the same time.

[PC storage Parameter]

Record file packing time: set packing time of record files for local PC when it is recording.

Record file path: set the storage directory for local records and snapped files, the default path is C:\XDNVS.

After you set these parameters, please click  to make them valid.

5.2 Remote config

5.2.1 Audio Setting

See Figure 15 for the interface of "Audio Setting".

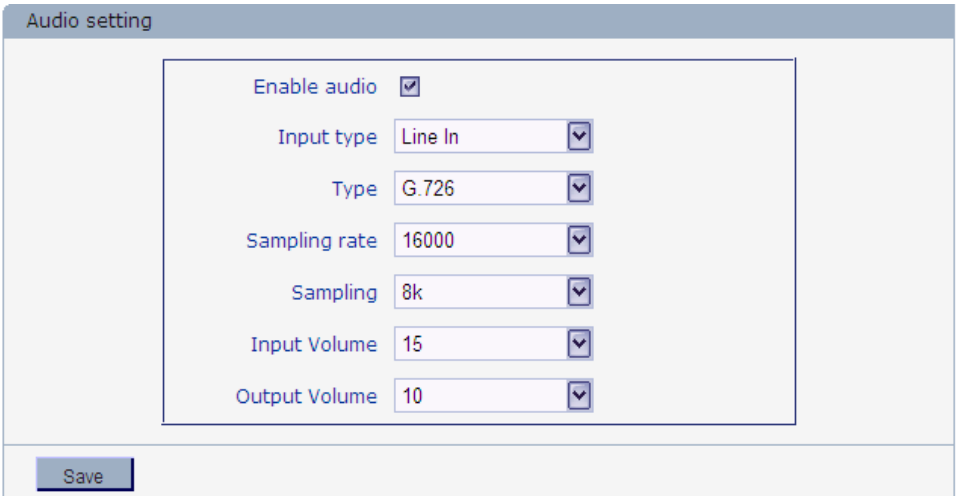


Figure 15

[Enable audio]: turn on or turn off the audio of IP camera, When there is no need for audio, close audio input to save DSP resource and network resource. Audio is disabled by default.

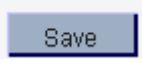
[Input type]:You can choose MIC or Line In input.

[Type]:Support three types of audio compressed format:G.726,G.711A,G.711U,AAC.

[Sampling]:Support audio sample rates of 8k ,16k and 32k. When you select AAC format, sample rate is fixed at 32K

[Input Volume]:Adjust the device's input volume to control the volume of Listen.

[Output Volume]:Adjust the device's output volume to control the volume of Call.

After you set these parameters, please click 

to make them valid.

5.2.2 Video Settings

5.2.2.1 Text Overlay

See Figure 16 for the interface of "Text Overlay":

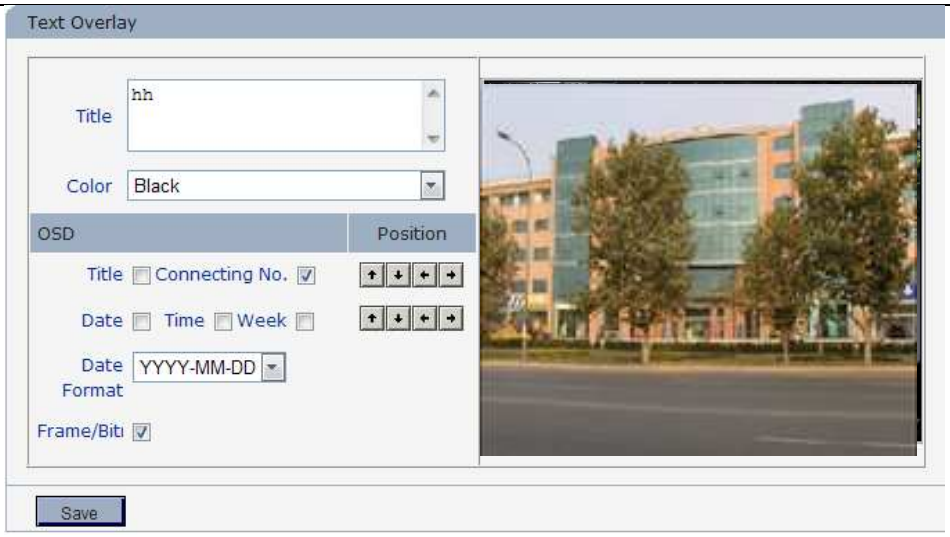


Figure 16

[Title]: the name of video channel, displayed at the bottom left of image(movable), maximum characters allowed: 32.

[Color]:You can choose different colors for the text.

[OSD]: Display or not to display Title, Connecting No.,Date, Time, Week, Date Format and Frame/Bitrate of channels.

[Position]: Can adjust the display position of video title and Date,Time,Week.

After you set these parameters, please click Save to make them valid.

5.2.2.2 Video Coding

See Figure 17 for the interface of "Video Coding":

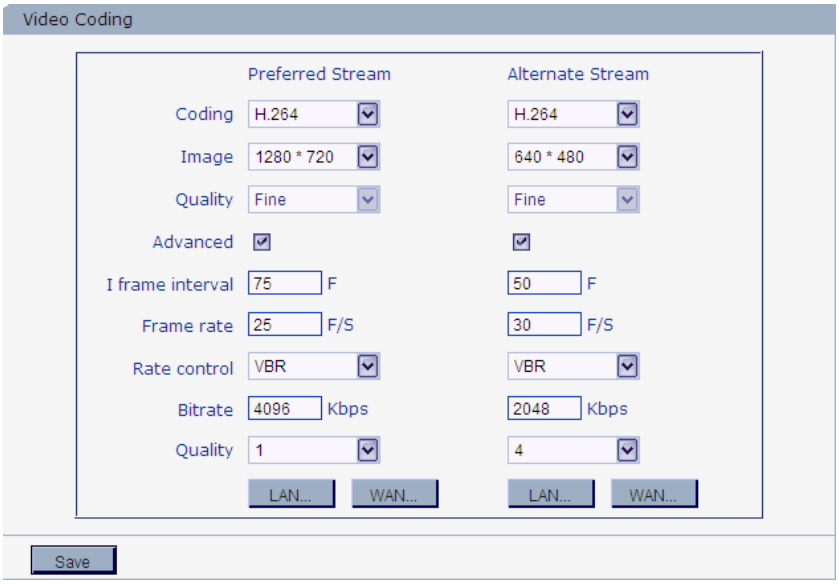


Figure 17

[Coding]: H.264 and MJPEG.

[Image]: set definition of images.

Hitachi camera (130W　CCD)

Preferred Stream:1280*960/1280*720;

Alternate Stream:640*480/320*240/160*112

Hitachi　camera (200W CMOS)

Preferred Stream:1920*1080/1280*720;

Alternate Stream:640*480/320*240/160*112

720P camera (130W CMOS)

Preferred Stream: 1280*720;

Alternate Stream:640*480/320*240/160*112

Sony camera (200W CMOS)

Preferred Stream:1920*1080/1280*720;

Alternate Stream:640*480/320*240/160*112

CMOS support：

Preferred Stream：640*480/320*240/160*112；

Alternate Stream：640*480/320*240/160*112

CCD support：

PAL mode---D1(704*576)/Half-D1(704*288)/CIF(352*288)/QCIF(176*144)

NTSC mode---D1(704*480)/Half-D1(704*240)/CIF(352*240)/QCIF(176*120)

[Quality]:You can choose the right quality according to your need: Fine, Normal, Basic,and the parameters can also be user-defined by choosing [advanced].

[I frame interval]: Adjustable between 1～200(Preferred Stream), 1～120(Alternate Stream).Smaller I frame interval means higher image bitrate and better image quality. It is recommended to set the I frame interval as above 25.

[Frame rate]: Set encoding frame rate per second. Under poor network condition, frame rate can be reduced to control encoding bitrate to make motion images flow more smoothly.

[Rate control]: CBR and VBR are optional. CBR adopts constant encoding bitrate, VBR adopts variable encoding bitrate.

[Bitrate]:The range of preferred and alternate stream is 30~16384Kbps.Higher bitrate setting can generate better image quality, but it occupies more bandwidth, please adjust the setting according to your actual bandwidth.

Under CBR setting, [Bitrate] is the constant bitrate of encoding.

Under VBR setting, [Bitrate] is the variable bitrate of encoding.

[Quality]: Under CBR setting: set the bitrate range via "Image Quality", 1 means it is controlled by the software, 2~6 means corresponding bitrate range is ±10%～±50%

Under VBR setting: set image quality via "Image Quality", smaller value of image quality means better quality and higher bitrate, but the bitrate will not exceed its set value.

[LAN default value]:

Preferred Stream:

H.264 Coding: I frame interval: 75, frame rate: 25, bitrate: VBR, 720P: 4096 kbps, 1080P:8192kbps .image quality:2;

MJPGE Coding: I frame interval: 75, frame rate: 25, bitrate: VBR, 720P: 9216 kbps, 1080P:10240kbps .image quality:2;

Alternate Stream:

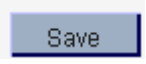
H.264 Coding: I frame interval: 50, frame rate: 25, bitrate: VBR: 512 kbps,.image quality:4;

MJPGE Coding: I frame interval: 50, frame rate: 25, bitrate: VBR: 4096 kbps.image quality:4;

[WAN default value]:

H.264 Coding: I frame interval: 25, frame rate: 5, bitrate: VBR: 384kbps, image quality:4

MJPGE Coding: I frame interval: 25, frame rate: 5, bitrate: VBR: 4096kbps, image quality:4

After you set these parameters, please click 

to make them valid(Sometimes if you modify the [image],the device will be reboot).

Note: Non-professional users please use "Advanced Settings" with caution.

5.2.2.3 Video Mask

See Figure 18 for the interface of "Video Mask area":

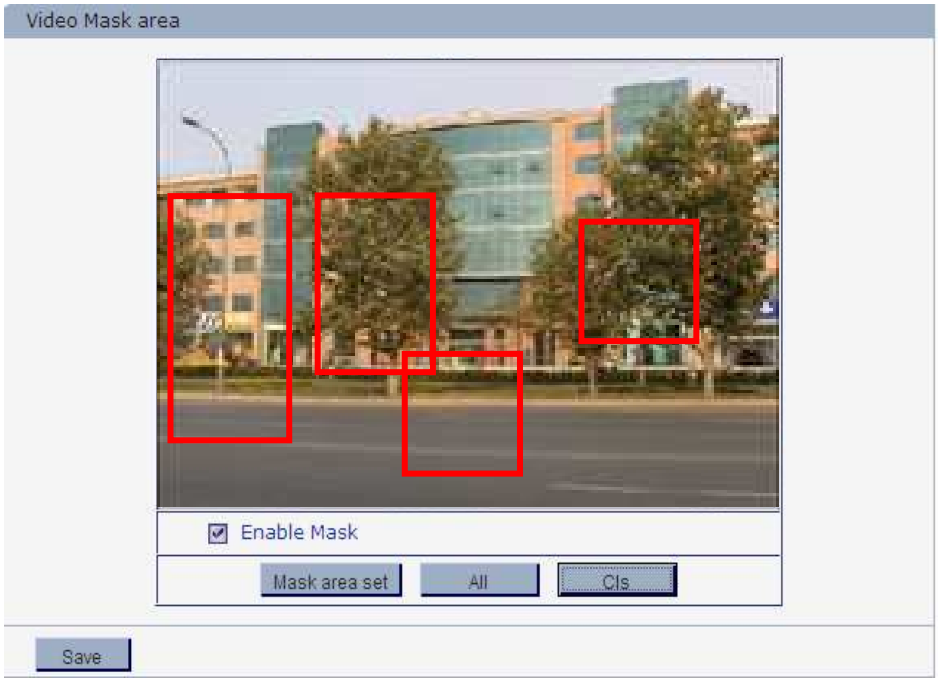


Figure 18

[Enable Mask]: Enable or disable video masking.

[Mask area set]: Click and move cursor to set image masking area, an image can be entirely or partially masked, maximum 4 areas supported.

[All]: Mask the whole image.

[Cls]: Clear masked areas.

After you set these parameters, please click Save to make them valid.

5.2.2.4 Picture Parameter

See Figure 19 for the interface of "Snap picture Parameter Setting":

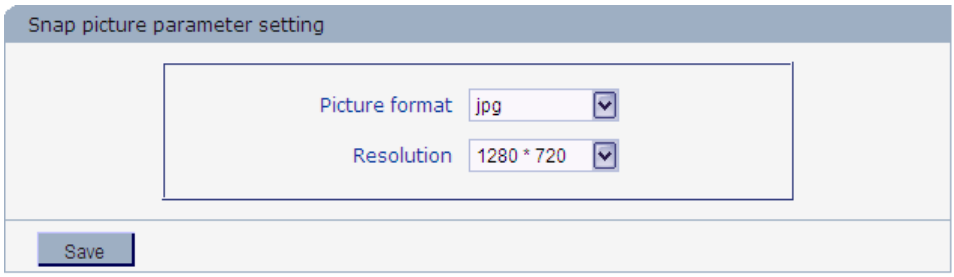


Figure 19

[Snap picture parameter setting]: Supports only images of JPG format currently, megapixel camera definition is the same as set in [video definition],other cameras can choose different pixel by yourself.

After you set these parameters, please click Save to make them valid.

5.2.3 Network Settings

5.2.3.1 Basic Setting

See Figure 20 for the interface of "Basic setting":

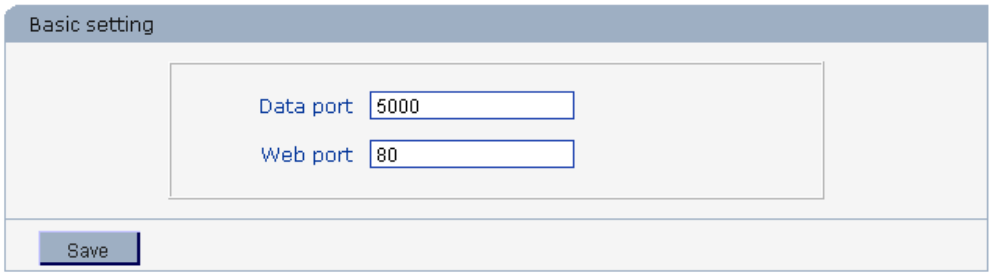
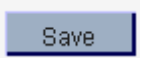


Figure 20

[Data port]: Default value is 5000 (users are recommended not to change it).

[Web port]: Default value is 80 (users are recommended not to change it).

After you set these parameters, please click 

and the device will reboot to make the parameters valid.

5.2.3.2 LAN Setting

See Figure 21 for the interface of "LAN setting":

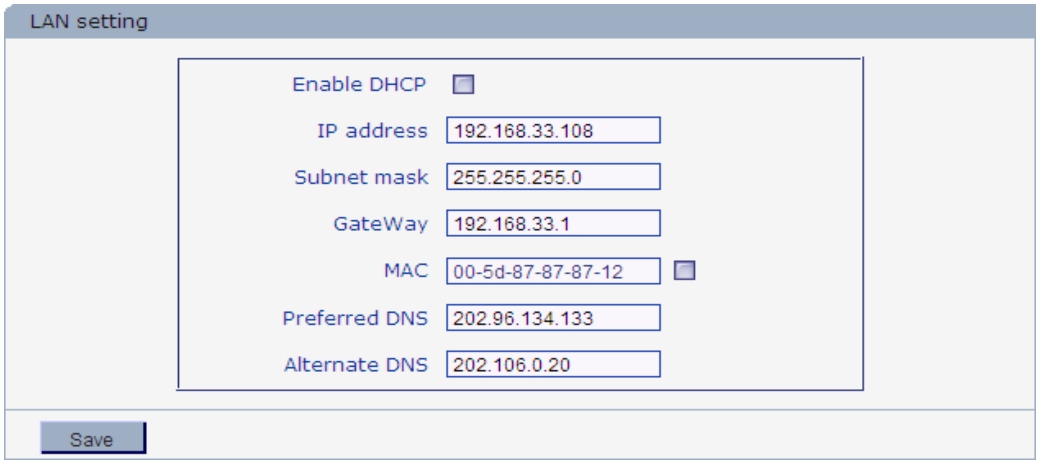


Figure 21

[DHCP]: If DHCP function of the router is enabled, IP camera will automatically fetch IP address from the router.

[IP address]: Set the camera's IP address.

[Subnet mask]: Default value is 255.255.255.0 (users are recommended not to change it).

[Gateway]: Set the gateway IP of IP camera, for example when the device is connected to public network via a router, the gateway IP is the router IP.

[MAC]: The Physical address of IP camera (users are recommended not to change it).

[DNS]: The default DNS address is the DNS address of Guangdong province, users outside the area please use DDNS function to set the DNS address as their local DNS address.

Note: After revise and save parameters, the device will restart. If it is applied in LAN, please pay attention to avoid conflict between its IP address and the IP addresses of other devices or PC in the LAN.

5.2.3.3 PPPOE Setting

See Figure 22 for the interface of "PPPOE setting":

Figure 22

[Enable PPPOE]:Enable or disable PPPOE dial-up function.

[IP]: After successful setting of device dial-up, it will display the public IP Address.

[Username]: ADSL dial-up account, obtain from the IP service provider.

[Password]: ADSL dial-up password, obtain from the IP service provider.

[Online time]: Start timing after dial-up to see the online duration after successful dial-up.

After you set these parameters, please click Save to make them valid.

5.2.3.4 UPNP setting

See Figure 23 for the interface of "UPNP setting":

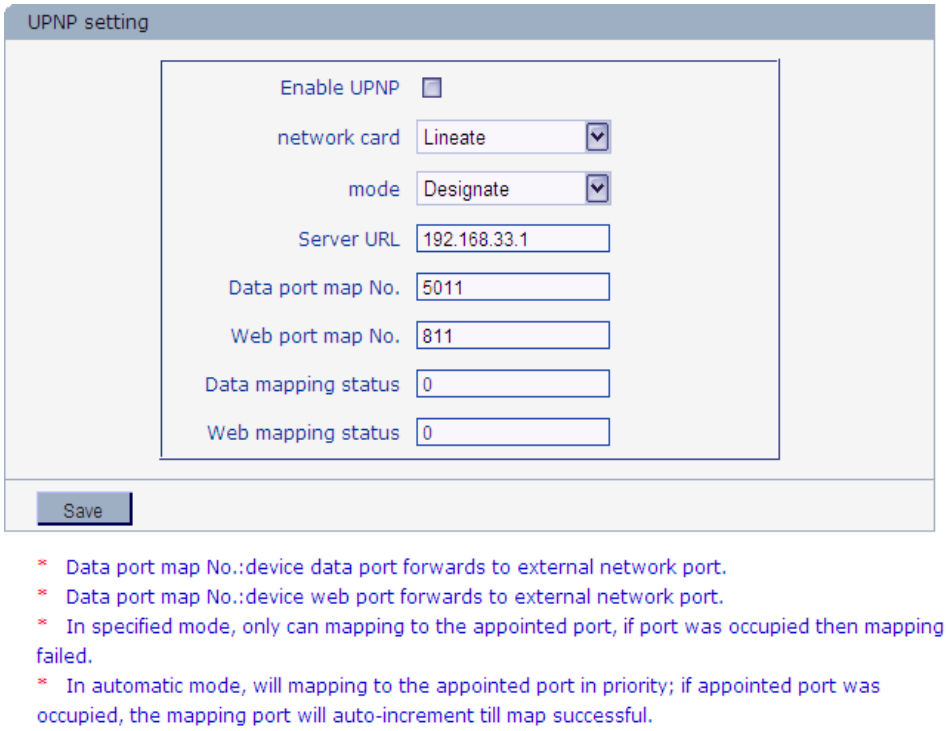

UPNP setting
Enable UPNP
network card
Lineate
mode
Designate
Server URL
192.168.33.1
Data port map No.
5011
Web port map No.
811
Data mapping status
0
Web mapping status
0
Save
* Data port map No.:device data port forwards to external network port.
* Data port map No.:device web port forwards to external network port.
* In specified mode, only can mapping to the appointed port, if port was occupied then mapping failed.
* In automatic mode, will mapping to the appointed port in priority; if appointed port was occupied, the mapping port will auto-increment till map successful.

Figure 23

Auto-mapping of port, when IP camera is connected to a router with UPNP function enabled, the router will automatically map the port in UPNP settings to public network, manual port mapping by users is not necessary.

[network card]: select the type of NIC connecting UPNP router. For WiFi models, when IP camera is connected to router via WiFi network, select "wireless" mode.

[Mode]: specified mode and auto mode.

Specified mode means to specify data mapping port and web mapping port to router.

Auto mode means data mapping port and web mapping port are set up by router.

[Server URL]: IP address of the router with UPNP.

[Data port map No.]: Data mapping port of user-specified device on the router(works only under specified mode).

[Web port map No.]: Web mapping port of user-specified device on the router(works only under specified mode).

[Data mapping status]: When UPNP function runs successfully, the status bar will echo the data port mapped to the router by the device.

[Web mapping status]: When UPNP function runs successfully, the status bar will echo the web port mapped to the router by the device.

After you set these parameters, please click Save to make them valid.

5.2.3.5 Email setting

See Figure 24 for the interface of "Email setting":

Figure 24

To set the mailbox addresses and parameters of alarm mails and public network IP mails.

[SMTP server]: The address of servers that send the mails, the address format of mail servers varies from provider to provider, e.g. the SMTP server of 163 mailbox is smtp.163.com.

[MAIL From]:Mailbox that sends mails.

[MAIL To]: Mailbox that receives mails.

[SMTP username]: The login user name of the mailbox that sends mails.

[SMTP password]:The login password of the mailbox that sends mails.

[MAIL title]: Title of mails.

[SMTP Port]: Port of SMTP port, different mail server has different port. For example, the server port of Gmail is 465.

Commonly used mail server configuration:

	Gmail	Yahoo	163
SMTP server	smtp.gmail.com	smtp.mail.yahoo.com	smtp.163.com
SMTP user name	username@gmail.com	username@yahoo.com OR username@yahoo.com.cn	username
SMTP port:	587	465	25
SSL	enabled	enabled	disabled

5.2.3.6 FTP setting

See Figure 25 for the interface of "FTP setting":

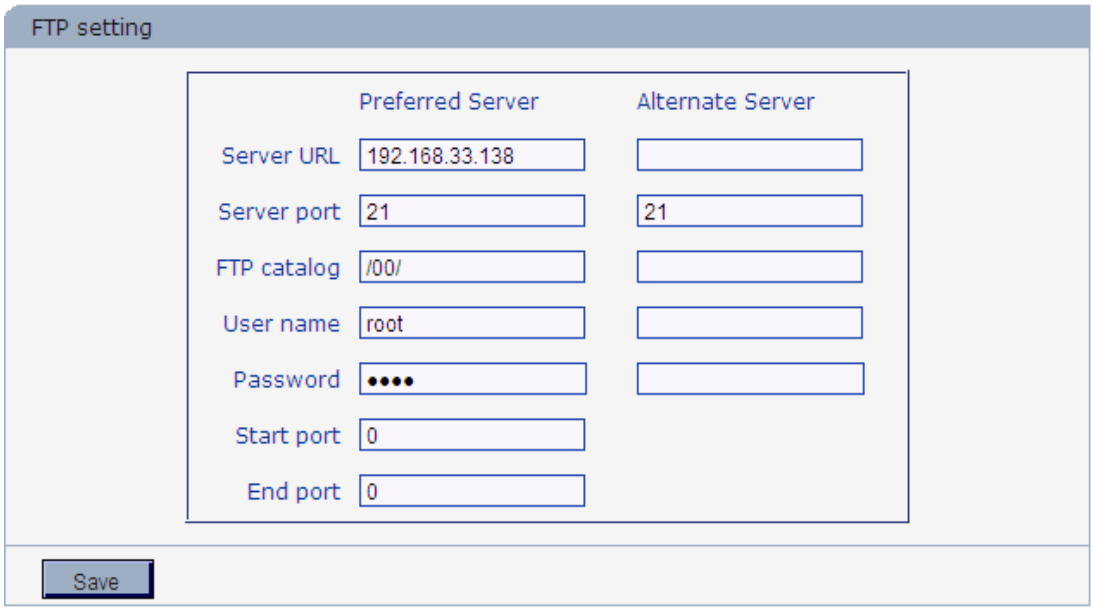


Figure 25

FTP server sends the record files and snapped images generated after alarm is triggered in FTP mode to specified FTP server, supports 2 FTP servers, when the preferred one goes wrong, system will switch to the alternate one.

[FTP URL]: The IP address or HTTP address of FTP server.

[Server port]: Port of FTP server, the default port is 21.

[FTP catalog]:Path on remote FTP server, if the path doesn't exist or has not been filled in, the device will create a file folder under the root directory of FTP server.

[User name] and **[Password]**: User name and password of FTP server.

Notice：If you want to upload the record files and snapped images,you must have the authority to write on the FTP server.

5.2.3.7 DDNS setting

See Figure 26 for the interface of "DDNS setting":

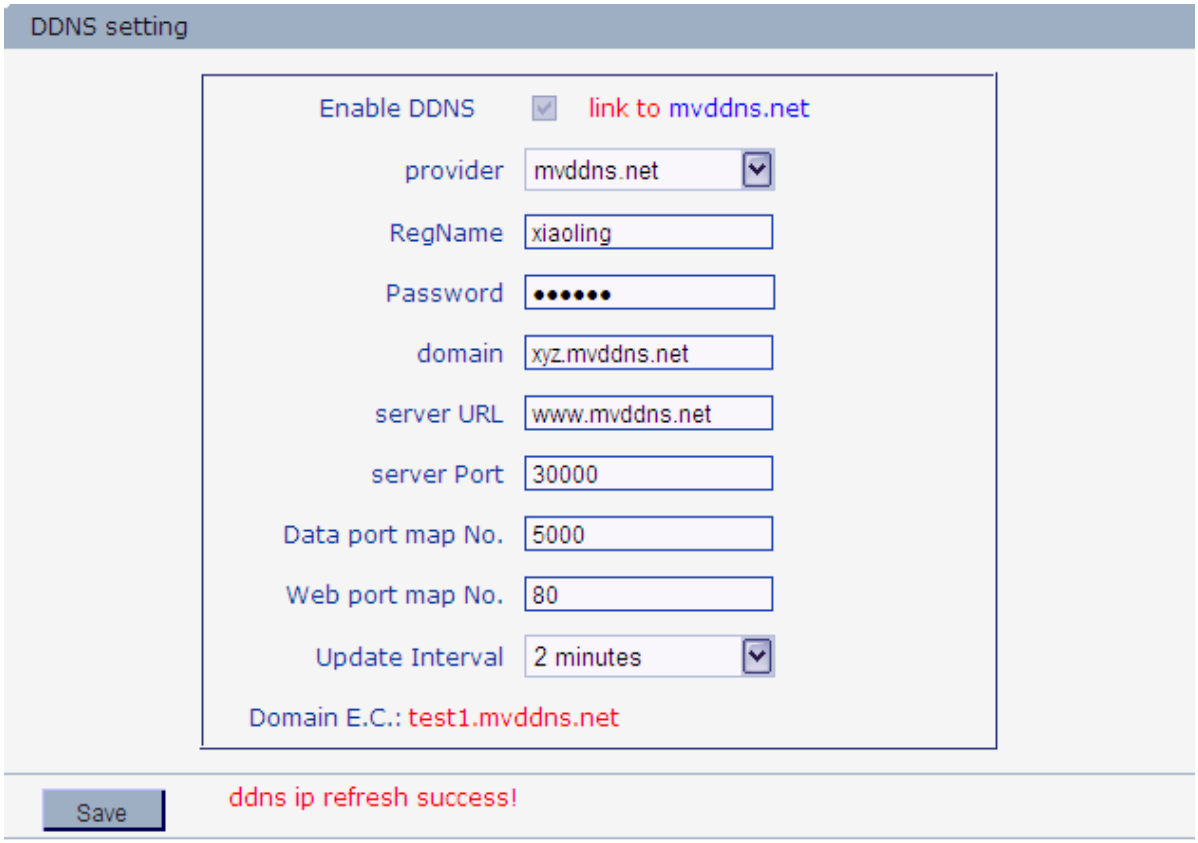


Figure 26

Bind the device with a fixed domain name by DNNS setting so that visiting to the device can be realized no matter how the public IP changes.(Refer to Appendix 3 for detailed steps)

[Enable DDNS]: Enable or disable DDNS function.

Link mvddns.net: click this link to turn to www.mvddns.net, users can sign up on this website.

[Provider]: mvddns.net, 3322.org and user ddns server are selectable.

[RegName]: User registered in DDNS server.

[Password]: User password registered in DDNS server.

[Domain]: The domain name set up by users, e.g.: test1.mvddns.net.

[server URL]: DDNS server address. When DDNS address is the domain name, please set the DNS address in [Basic Parameters] correctly.

[server port]: Default value is 30000 (users are recommended not to change it).

[Data port map No.]:Fill in the external data port mapped by the IP camera on the router that is connected to public website.

[Web port map No.]:Fill in the external web port mapped by the IP camera on the router that is connected to public website.

After you set these parameters, please click Save to make them valid.

5.2.3.8 VPN setting

See Figure 27 for the interface of "VPN setting":

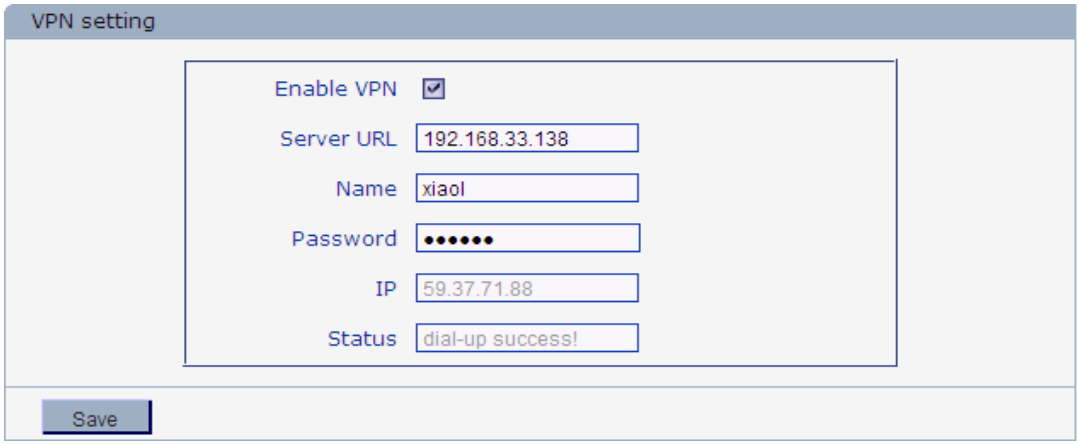


Figure 27

[Enable VPN]: Enable or disable VPN function.

[Server URL]:IP address or domain of VPN server.

[Name]: User registered in VPN server.

[Password]: User password registered in VPN server.

[IP]:Display ip after VPN dial-up success.

[Status]:Display the status of dial-up.

After you set these parameters, please click Save to make them valid.

5.2.3.9 RTSP setting

See Figure 28 for the interface of "RTSP setting":

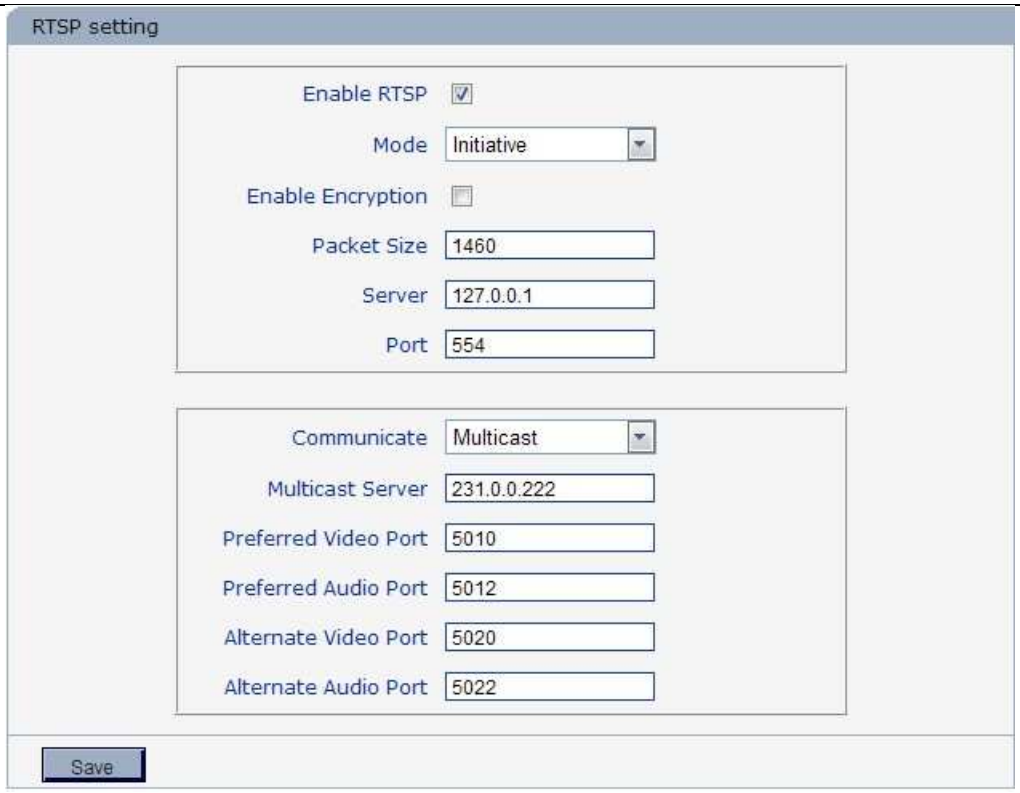


Figure 28

[Enable RTSP]: check RTSP switch to enable RTSP function.

[Enable encryption]: check encryption switch,you need the password then using VLC player connect camera.

Open: rtsp://ip/av0_0&user=admin&password=admin;

Close：rtsp://ip/av0_0;

"av0_0 ",frist"0" shows channel:0,1,2,3，represent the channel :1,2,3,4;HD IP speed dome camera has only one channel,fill in"0";The second "0" shows preferred / alternate stream,0:preferred stream,1:alternate stream;

If the authentication mode is changed, the camera reboot.

RTSP port: Default port is 554.

With RTSP function enabled, users can review the audio and video streams in real time via players that supports standard RTSP protocol

[Communicate]:Unicast and Multicast are optional.

After you set these parameters, please click Save to make them valid.

5.2.3.10 Public IP noticed by email

See Figure 29 for the interface of "Public IP noticed by email":

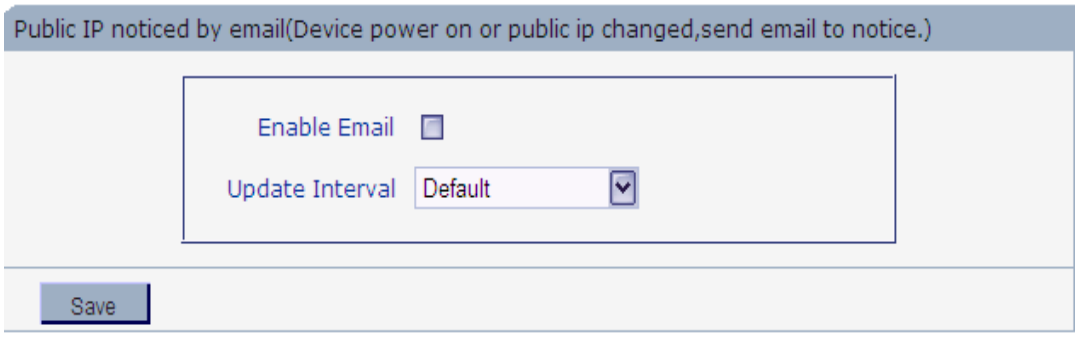

Public IP noticed by email(Device power on or public ip changed,send email to notice.)
Enable Email
Update Interval
Default
Save

Figure 29

[Enable Email]:Check this switch to enable public IP mail notification function.

[Update Interval]: Select the interval of public IP mail notifications.

After enable this function, when the device starts or detects public IP change, it will send notification mail to the mail address setted in [mail setting].

After you set these parameters, please click Save to make them valid.

5.2.3.11 Connect setting

See Figure 30 for the Connect setting

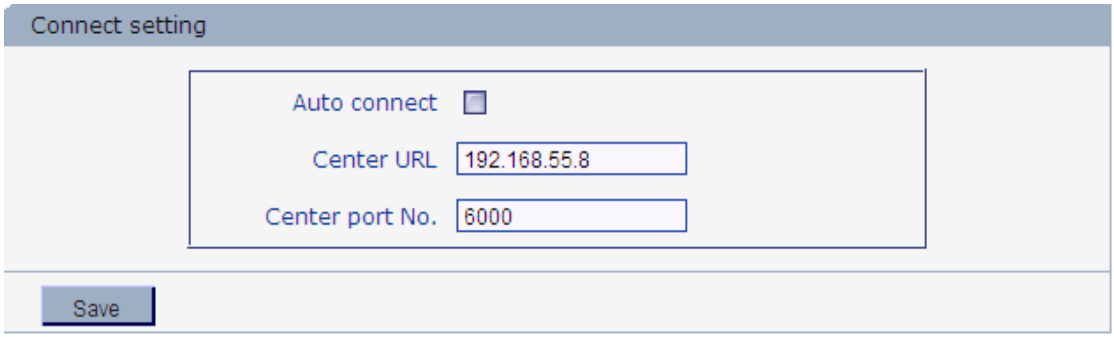


Figure 30

[Auto connect]: Enable or disable active connection of the device to surveillance center.

[Central URL]:The address of surveillance center (e.g. 192.168.55.8).

[Central port No.]: The port of surveillance center (e.g. 6000).

After setting all the network parameters, click [save] to make the parameters valid.

5.2.3.12 Mobile setting

See Figure 31 for the Mobile setting

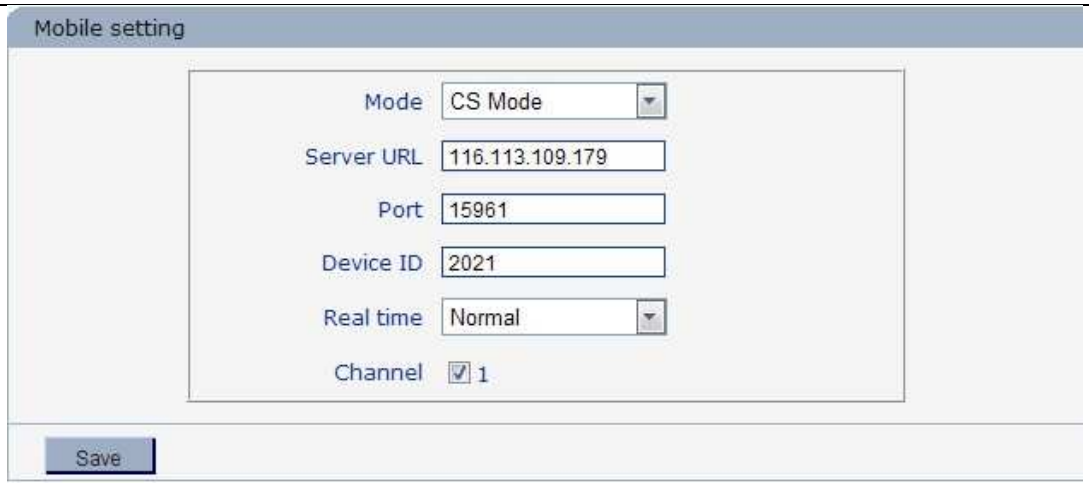


Figure 31-1（CS Mode）

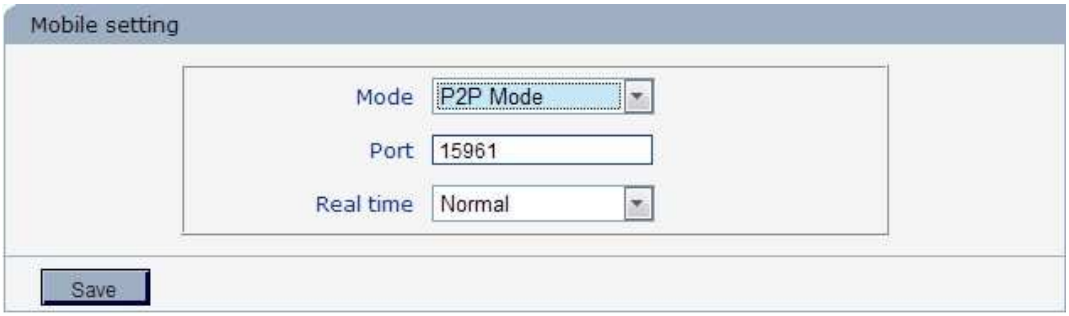


Figure 31-2（P2P Mode）

[Mode]:CS Mose and P2P Mode

[Servel URL]: IP address or domain of Mobile server.

[Port]: Port of server,

[Device ID]:ID of device

[Real time]: Fine, Mormal and Basic

[Channel]:Channel of video streaming

5.2.4 Storage Settings

5.2.4.1 Device Setting

See Figure 32 for the interface of "Device Setting":

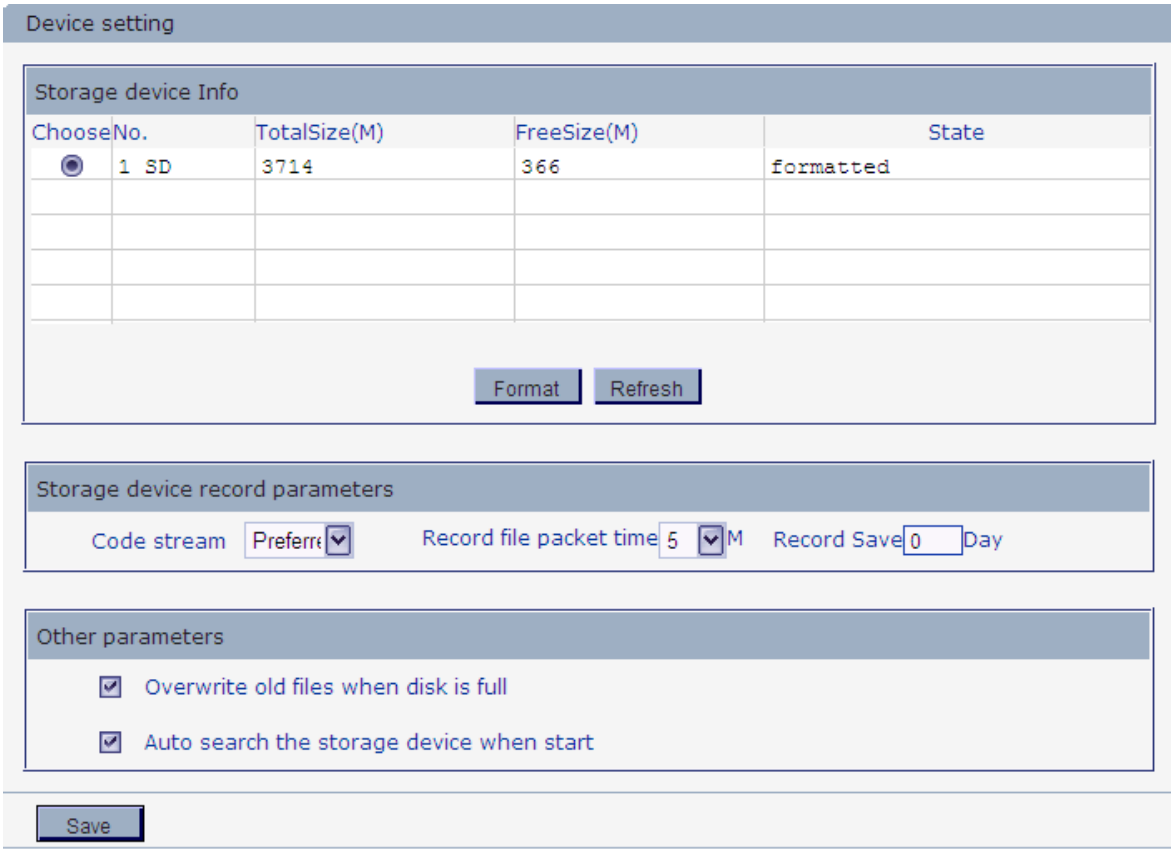


Figure 32

[Storage Device Info]: View information of SD card here, including No.,TotalSize,FreeSize and Status. Users can also click [Format] button to format SD card, during the formatting process, please click [Refresh] button to the display formatting completion percentage.

[Storage device record parameters]

Code stream:Set record stream for SD card, preferred stream and alternate stream are selectable.

Record file packet time:Set packing intervals for each segment of record file when SD card is recording.1 means files will be packed every 1 minute.

[Other Parameters]

Overwrite old files when disk is full: When the storage capacity of SD card is used up, the device will delete old files automatically. The way to delete old files: first delete the files of the earliest date, if the space is still not enough, then delete the files of the earliest date but one, then go on like this if necessary. If the record files are taken on the current date, then first

delete the files of the earliest hour. But files of the current hour cannot be deleted, if the SD card gets full in one hour, the device will stop recording and snapping images. After the one-hour session ends, system will delete the files of the hour and continue to record and snap pictures.

Auto search the storage device when start:Check storage device or not when IP camera starts.

Note：

- **Hot-plugging is not recommended for SD card, compulsory hot-plugging may damage the SD card, causing data loss or abnormal operation.**
- **Do not cut off the power of the device during formatting process.**
- **Ext2 file is used to format system by default.**
- **IP Camera doesn't support the storage that can be formatted into several partitions, so if you want to format it on PC before using it, please format it into one partition.**

After setting all the parameters, click [save] to make the parameters valid.

5.2.4.2 Record Setting

See Figure 33 for the interface of "Record Setting":

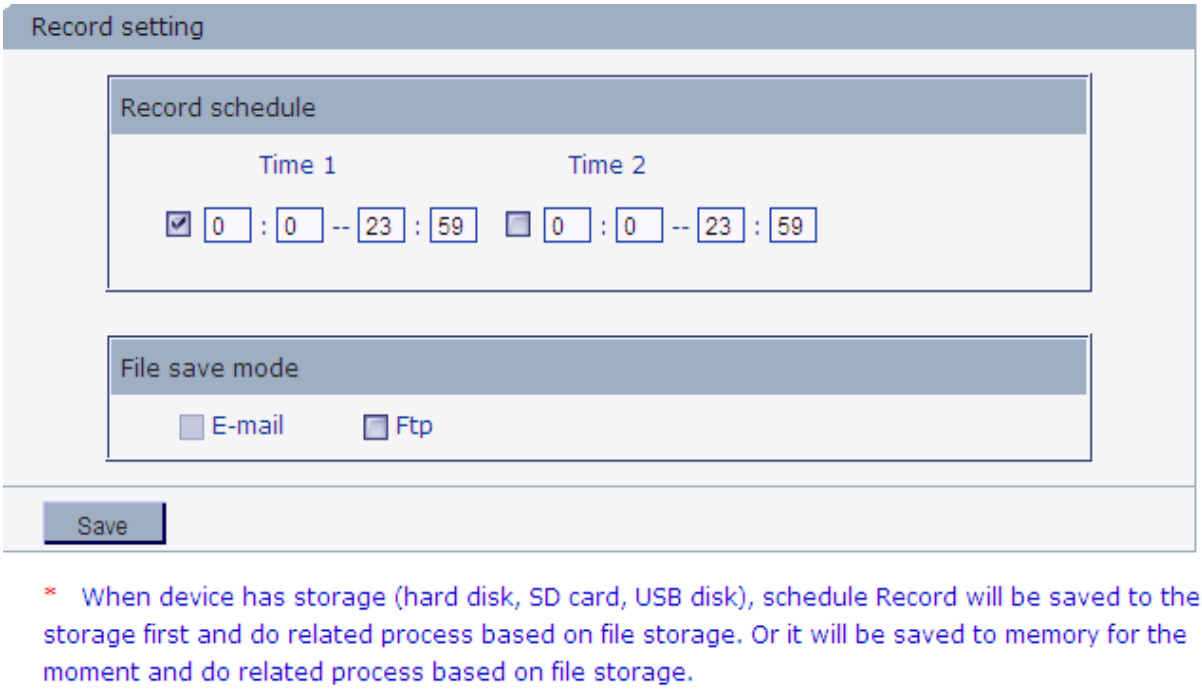

Record setting
Record schedule
Time 1
Time 2
0 : 0 -- 23 : 59
0 : 0 -- 23 : 59
File save mode
E-mail
Ftp
Save
* When device has storage (hard disk, SD card, USB disk), schedule Record will be saved to the storage first and do related process based on file storage. Or it will be saved to memory for the moment and do related process based on file storage.

Figure 33

[Record Schedule]:Set the period of scheduled recording, two periods allowed.

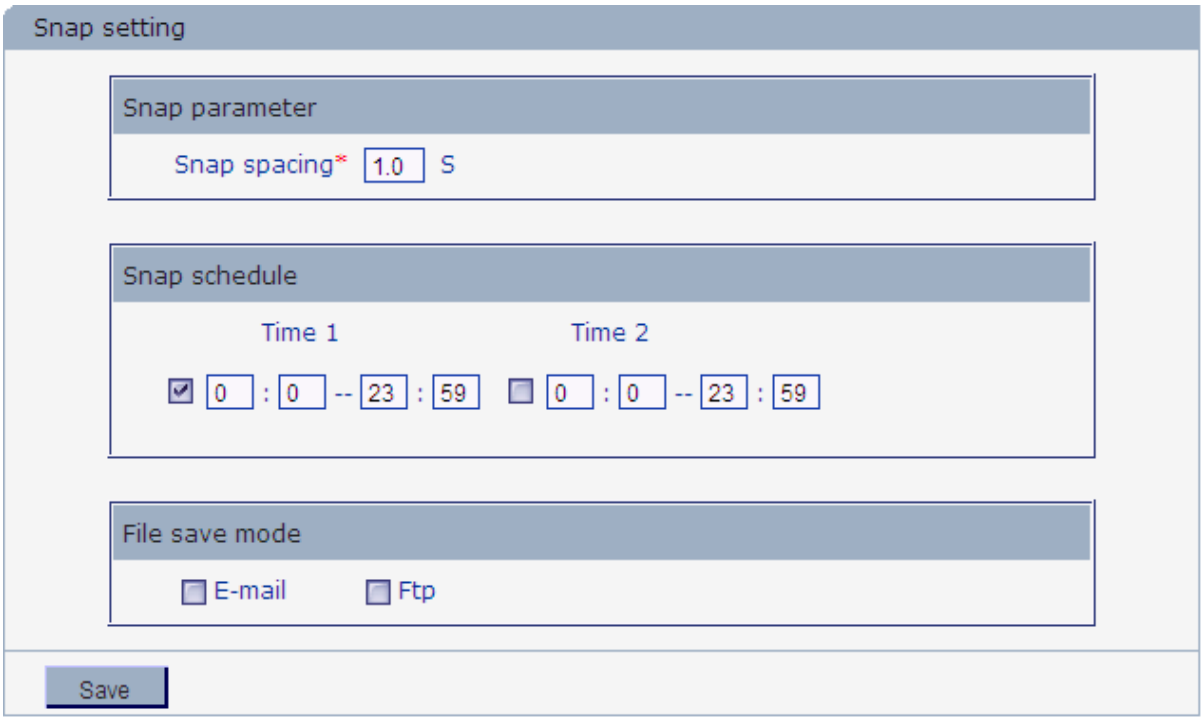
[File save mode]:Set the save scheduled recorded files to FTP server via FTP uploading, FTP server can be set up in [FTP settings].

After setting all the parameters, click [save] to make them valid.

Notice：Record files are saved via FTP uploading. SD card is needed for cache memory support, otherwise record files will be overwritten by new files due to insufficient cache memory space.

5.2.4.3 Snap Setting

See Figure 34 for the interface of "Snap Setting":



* When device has storage (hard disk, SD card, USB disk), schedule Snap will be saved to the storage first and do related process based on file storage. Or it will be saved to memory for the moment and do related process based on file storage.

Figure 34

[Snap parameter]: Set the interval of IP camera picture snapping, minimum interval is 0.2 second.

[Snap schedule]: Set the period of scheduled snapping, two periods allowed.

[File save mode]: IP camera snapped pictures can be saved via E-mail sending or FTP

uploading. E-Mail server can be set up in [Mail Settings], FTP server can be set up in [FTP Settings].

After setting all the parameters, click [save] to make the parameters valid.

5.2.5 Alarm Settings

5.2.5.1 Motion detection

See Figure 35 for the interface of "Motion detection":

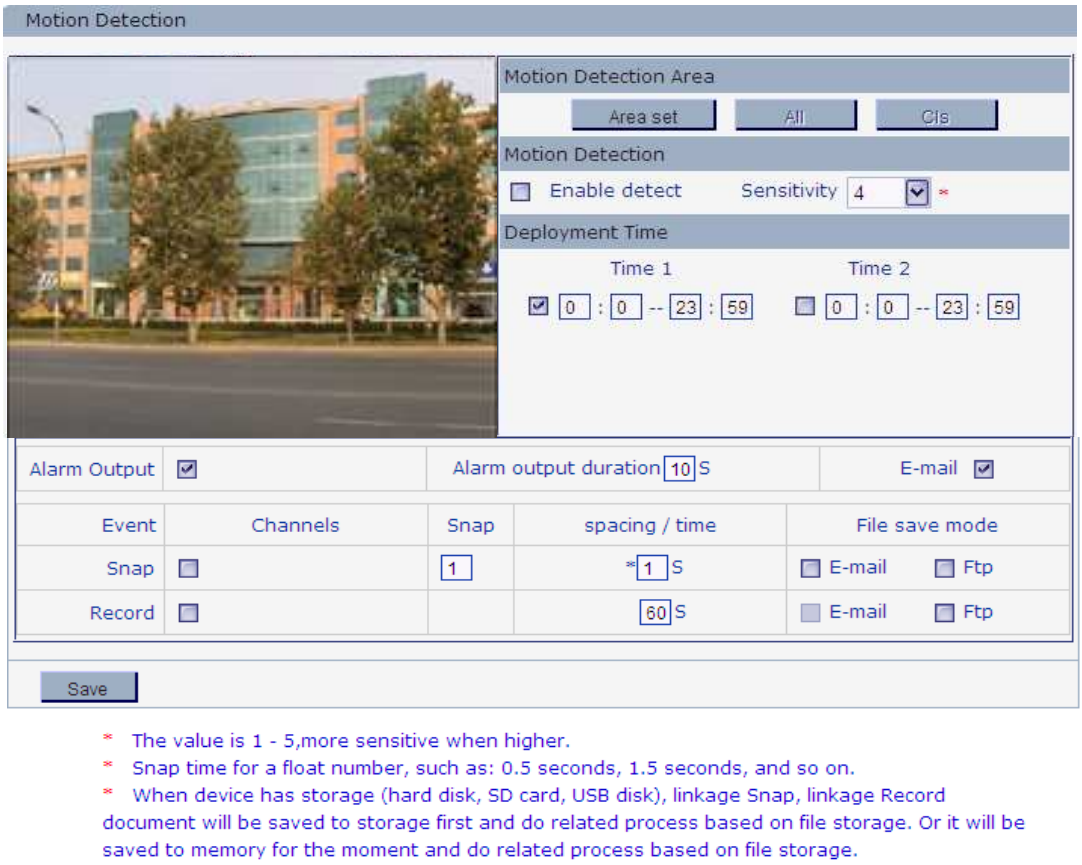

Motion Detection
Motion Detection Area
Area set
All
Clr
Motion Detection
Enable detect
Sensitivity 4 *
Deployment Time
Time 1
Time 2
0 : 0 -- 23 : 59
0 : 0 -- 23 : 59
Alarm Output
Alarm output duration 10 S
E-mail
Event
Channels
Snap
spacing / time
File save mode
Snap
1
*1 S
E-mail
Ftp
Record
60 S
E-mail
Ftp
Save
* The value is 1 - 5,more sensitive when higher.
* Snap time for a float number, such as: 0.5 seconds, 1.5 seconds, and so on.
* When device has storage (hard disk, SD card, USB disk), linkage Snap, linkage Record document will be saved to storage first and do related process based on file storage. Or it will be saved to memory for the moment and do related process based on file storage.

Figure 35

In this page, users can set features like motion detection on/off, sensitivity, detection time, linkage alarm output, alarm output duration, E-mail sending when alarm been triggered, linkage snapping/recording, etc.

[Enable detect]:Enable or disable motion detection.

[Sensitivity]:Sensitivity range is 1~5, greater value means higher sensitivity.

[Deployment Time]:Set the period of time for motion detection, two periods allowed.

[Alarm output]: Enable or disable linkage alarm output

[Alarm Output duration]: Set the duration of the linkage alarm output after being triggered (in

seconds), the range of the duration is 0~86400s.0 means that there is no limit for alarm output.

[E-mail]: Send motion detection alarm information to users via E-mail, details about E-mail setting please refer to [Network Settings].

[Linkage Snapping]: When alarm is triggered, the device SD card will be driven to snap pictures. The pictures can be saved via E-mail sending or FTP uploading. For snapping parameters, if the number of pictures snapped at one time is set as 10, and the snapping interval is 1 second, that means when there is an alarm, 10 pictures will be snapped and the interval between each picture is 1 second.

[Linkage recording]: When alarm is triggered, the device SD card will be driven to record images. The record files can be saved via E-mail sending or FTP uploading.

[Motion Detection Area]: Left click and drive the mouse to set the surveillance areas (4 areas at most).

[All]: Set the whole video as motion detection area.

[Clear]: Clear all motion detection areas.

After setting all the parameters, click [save] to make the parameters valid.

Notice：Record file packet time equals duration of alarm add the recocd time setted in [Linkage recording].

5.2.5.2 Sensor Setting

See Figure 36 for the interface of "Sensor Setting":

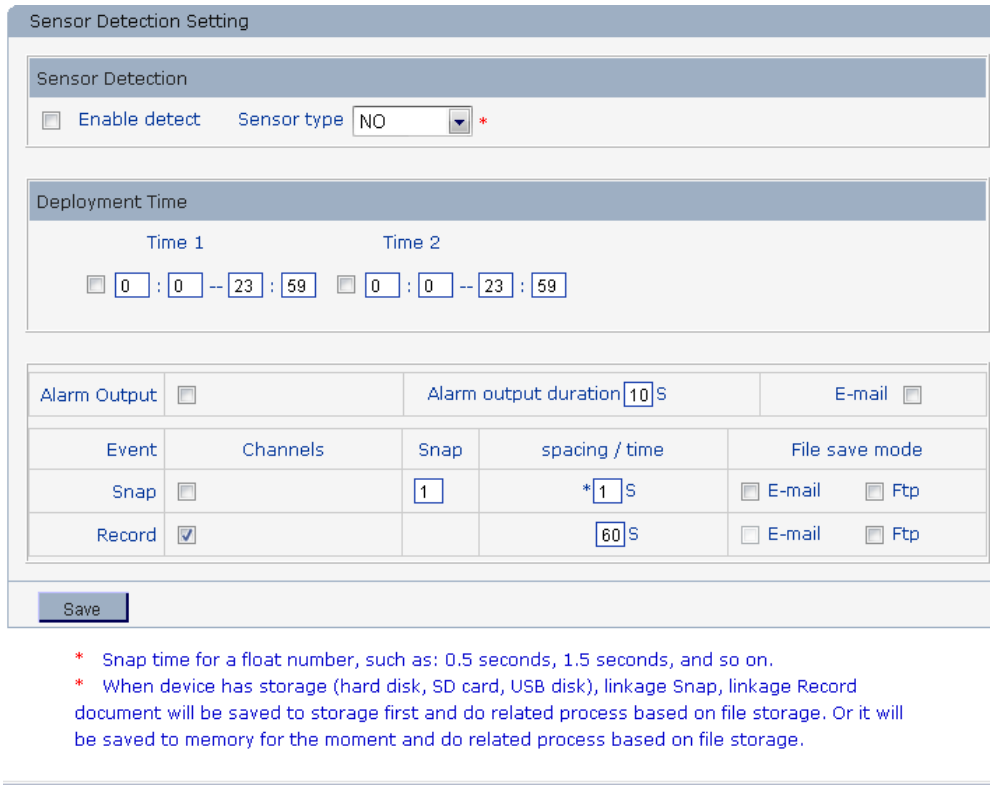

Sensor Detection Setting
Sensor Detection
Enable detect
Sensor type
NO
Deployment Time
Time 1
Time 2
0 : 0 -- 23 : 59
0 : 0 -- 23 : 59
Alarm Output
Alarm output duration 10 S
E-mail
Event
Channels
Snap
spacing / time
File save mode
Snap
1
*1 S
E-mail
Ftp
Record
60 S
E-mail
Ftp
Save
* Snap time for a float number, such as: 0.5 seconds, 1.5 seconds, and so on.
* When device has storage (hard disk, SD card, USB disk), linkage Snap, linkage Record document will be saved to storage first and do related process based on file storage. Or it will be saved to memory for the moment and do related process based on file storage.

Figure 36

Set sensor alarm parameters here: Enable detect,sensor type, deployment time, linkage alarm output, linkage output duration, E-mail sending when alarm has been triggered, linkage snapping/recording, etc.

[Enable detect]:Enable or disable sensor alarm detection.

[Sensor type]: NO mode.

[Deployment Time]: Set the period of time for sensor alarm detection, two periods allowed.

[Alarm output]: Enable or disable linkage alarm output

[Alarm output duration]: Set the duration of the linkage alarm output after being triggered (in seconds), the range of the duration is 0~86400s.0 means that there is no limit for alarm output.

[E-mail]: Send sensor alarm information to users via E-mail, details about E-mail setting please refer to [Network Settings].

[Snap]: When alarm is triggered, the device SD card will be driven to snap pictures. The pictures can be saved via E-mail sending or FTP uploading. For snapping parameters, if the number of pictures snapped at one time is set as 10, and the snapping interval is 1 second, that means when there is an alarm, 10 pictures will be snapped and the interval between

each picture is 1 second.

[Record]: When alarm is triggered, the device SD card will be driven to record images. The record files can be saved via E-mail sending or FTP uploading.

After setting all the parameters, click [save] to make the parameters valid.

Notice：Record file packet time equals duration of alarm add the recocd time setted in [Linkage recording].

5.2.5.3 Failure Setting

See Figure 37 for the interface of "Failure Setting":

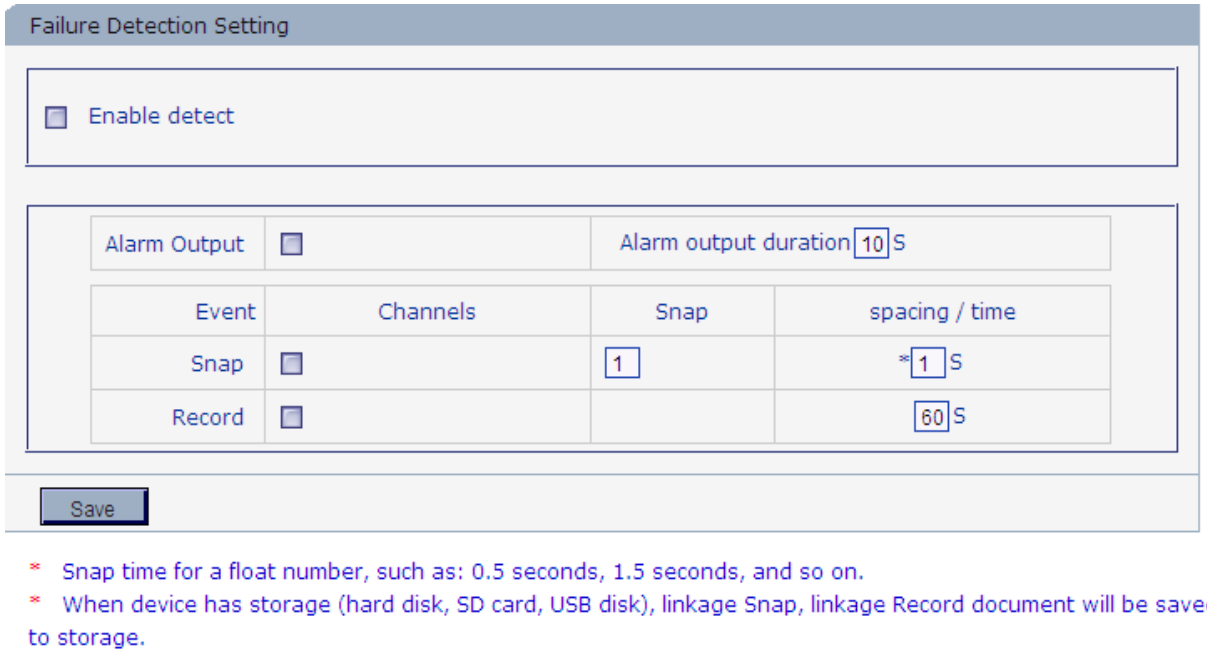


Figure 37

Set network failure alarm parameters here: detection on/off, linkage alarm, alarm output duration, E-mail sending when alarm has been triggered, linkage snapping/recording, etc.

[Enable detect]: Enable or disable network failure alarm detection.

[Sensor type]: NO and NC mode.

[Alarm output]: Enable or disable linkage alarm output

[Alarm output duration]: Set the duration of the linkage alarm output after being triggered (in seconds), the range of the duration is 0~86400s.0 means that there is no limit for alarm output.

[Snap]: When alarm is triggered, the device SD card will be driven to snap pictures. The pictures can be saved via E-mail sending or FTP uploading. For snapping parameters, if the number of pictures snapped at one time is set as 10, and the snapping interval is 1 second, that means when there is an alarm, 10 pictures will be snapped and the interval between each picture is 1 second.

[Record]: When alarm is triggered, the device SD card will be driven to record images. The record files can be saved via E-mail sending or FTP uploading.

After setting all the parameters, click [save] to make the parameters valid.

Notice：

- **Record file packet time equals duration of alarm add the recocd time setted in [Linkage recording].**
- **When network failure occurs, E-mail sending and FTP uploading cannot be performed, the pictures and recorded files will be stored in SD card. E-mail sending and FTP uploading will resume after network is recovered.**

5.2.6 Dome Camera

5.2.6.1 Camera Setting

See Figure 38,39,40,41 for the interface of "Camera Setting":

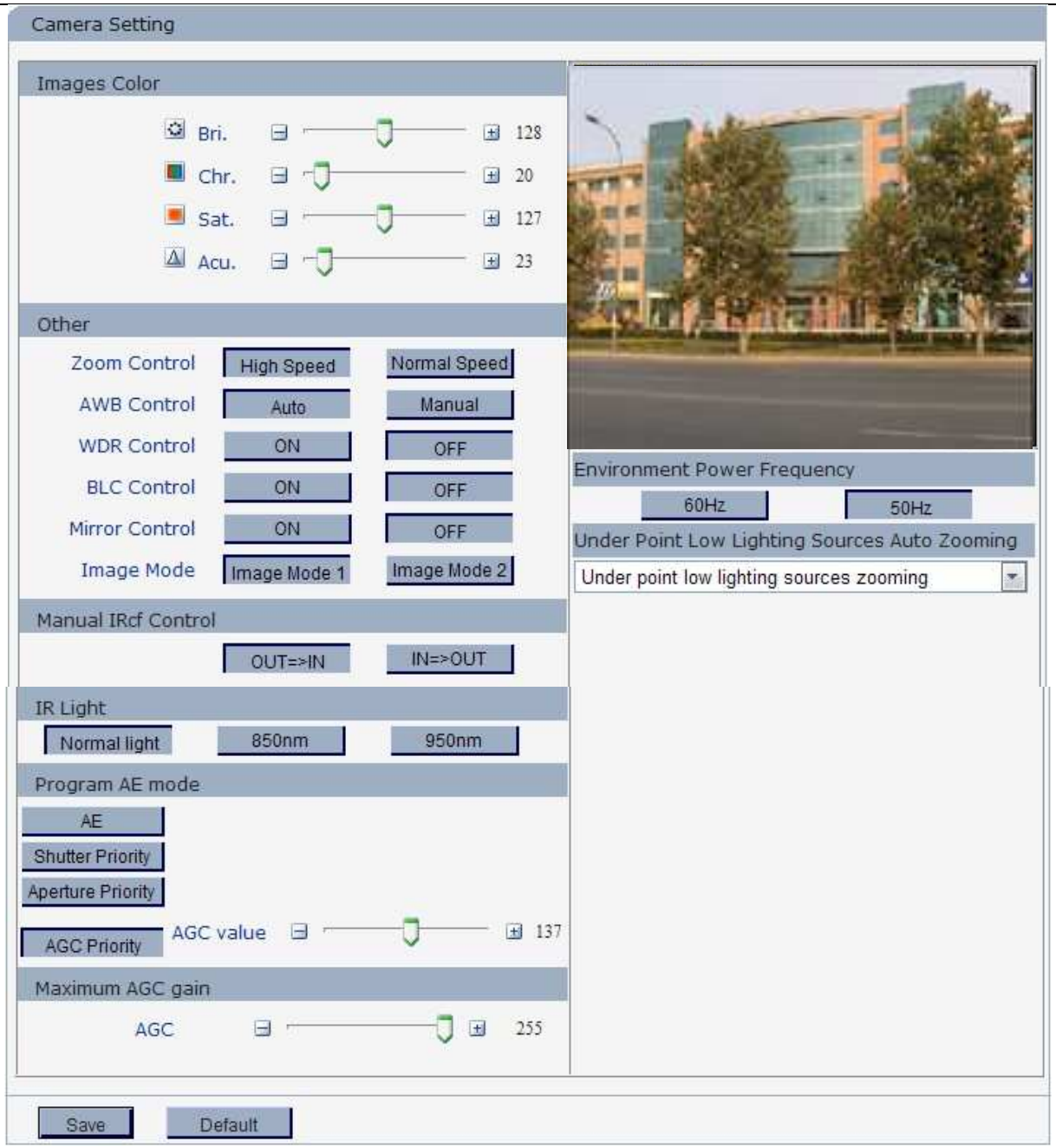


Figure 38（Hitachi 720P Camera）

[Images Color]: Adjust the Brightness, Chromatism, Saturation, Acutance of video.

[Zoom Control]: You can choose high speed(3.5s) or normal speed(5.1s).

[AWB Control]: You can choose Manual AWB or Auto mode to adjust white balance.

White balance: Depending on the lighting conditions, a pure white in a photograph may appear slightly yellow or blue. The white balance control will help to eliminate unwanted colour bias.

[WDR Control]: If you turn on WDR, you can't set [BLC Control].

Wide dynamic range: WDR is intended to provide clear images even under back light circumstances where intensity of illumination can vary excessively, namely when there are both very bright and very dark areas simultaneously in the field of view of the camera. WDR

enables the capture and display of both bright and dark areas in the same frame, in a way that there are details in both areas, i.e. bright areas are not saturated, and dark areas are not too dark.

[BLC Control]: To get better image effect, you can select BLC.

Back light compensation: When there is strong light behind the monitored objects, illumination compensation will be provided in the required range to get better image quality.

[Mirror Control]: Set mirror, horizontally rotate the video.

[Image Mode]: You can choose image mode 1 or 2.

Image mode 1: It is the default mode, can keep S/N as the balance mode.

Image mode 2: Better solution, but S/N is worse.

[Manual IRcf Control]: Set the picture displayed color or black and white.

Note：1.If you choose the mode that with D/N automatically in [Program AE mode],you can't set [Manual IRcf Control] .

2.If you do not select [Program AE mode],WDR funtion does works

---

[IR Light]: You can choose normal light,850nm light or 950nm light.

[Environment Power Frequency]: In indoor environment, if the flashing of lamps results in the flickering of images, please choose 50HZ or 60HZ according to the power frequency.

[Program AE mode]:

AE: AE mode,

AE mode+ D/N automatically+ high sensitivity mode

AE mode+ D/N automatically+ middle sensitivity mode

AE mode,slow shutter

AE mode,slow shutter+ D/N automatically+ high sensitivity mode

AE mode,slow shutter+ D/N automatically+ middle sensitivity mode

AE mode,slow shutter+ D/N automatically+ low sensitivity mode

Shutter Priority: You can obtain the value of aperture when shutter is defined manually control. It is used to shoot moving objects.

Aperture Priority: Set the value of aperture manually and can obtain the shutter speed.

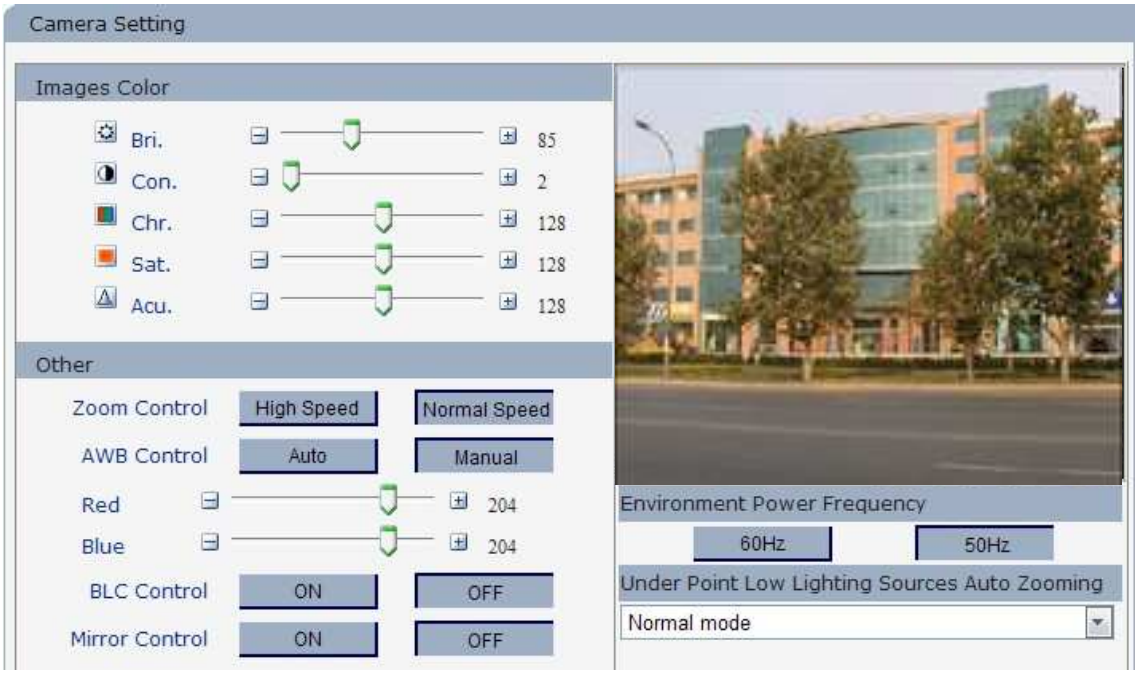
Auto Gain Control: The average output signal level is fed back to adjust the gain to an

appropriate level for a range of input signal levels. For example, without AGC the sound emitted from an AM radio receiver would vary to an extreme extent from a weak to a strong signal; the AGC effectively reduces the volume if the signal is strong and raises it when it is weaker. AGC algorithms often use a PID controller where the P term is driven by the error between expected and actual output amplitude.

Maximum AGC gain: Change the value of AGC .Range1~255.

[Under Point Low Lighting Sources Auto Zooming]: Enable or disable under point low lighting sources auto zooming.

Note：You can only select one mode in [program AE mode] at the sametime.



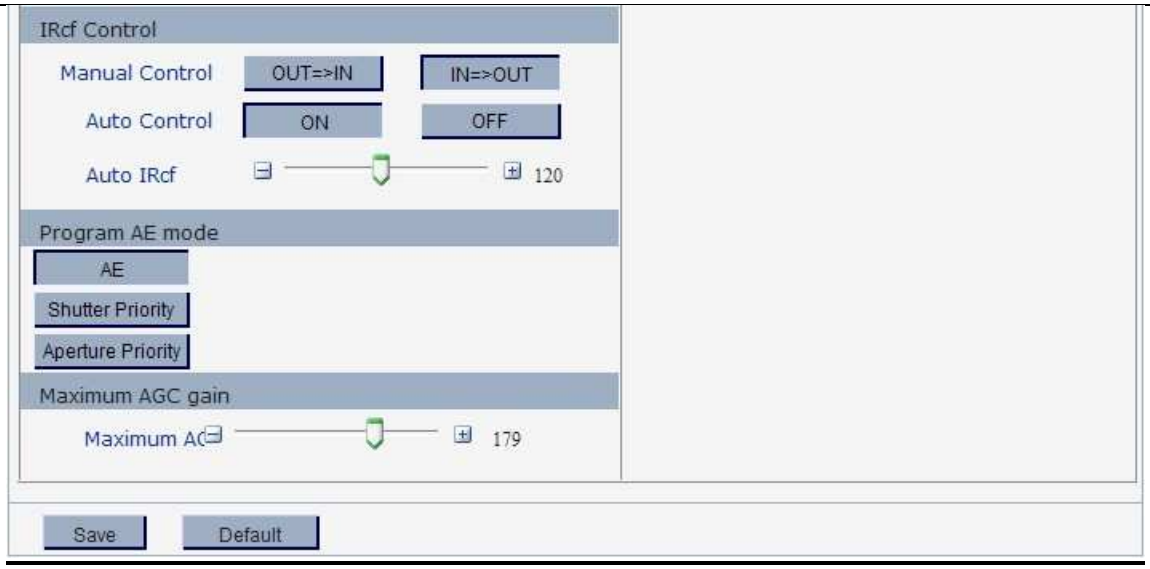


Figure 39（720P Camera）

[Images Color]: Adjust the Brightness, Chromatism, Saturation, Acutance, Contrast of video.

[Zoom Control]: You can choose high speed(3.5s) or normal speed(5.1s).

[AWB Control]: You can choose Manual AWB or Auto mode to adjust white balance.

White balance: Depending on the lighting conditions, a pure white in a photograph may appear slightly yellow or blue. The white balance control will help to eliminate unwanted colour bias.

[BLC Control]: To get better image effect, you can select BLC.

Back light compensation: When there is strong light behind the monitored objects, illumination compensation will be provided in the required range to get better image quality.

[Mirror Control]: Set mirror, horizontally rotate the video.

[IRcf Control]:

Manual Control: Manual set the picture displayed color or black and white.If you open it, "Auto Control" is hidden

Auto Control: Auto set the picture displayed color or black and white. If you turn it on,"Auto Ircf" display.It's range:1~255.

[Program AE mode]:

AE: Auto Exposure mode, Camera set the aperture and shutter value automatically

Shutter Priority: You can obtain the value of aperture when shutter is defined manually control. It is used to shoot moving objects.

Aperture Priority: Set the value of aperture manually and can obtain the shutter speed.

[Maximum AGC gain]: Change the value of AGC .

[Environment Power Frequency]: In indoor environment, if the flashing of lamps results in the

flickering of images, please choose 50HZ or 60HZ according to the power frequency.

[Under Point Low Lighting Sources Auto Zooming]: Enable or disable under point low lighting sources auto zooming.

Note：You can only select one mode in [program AE mode] at the sametime.

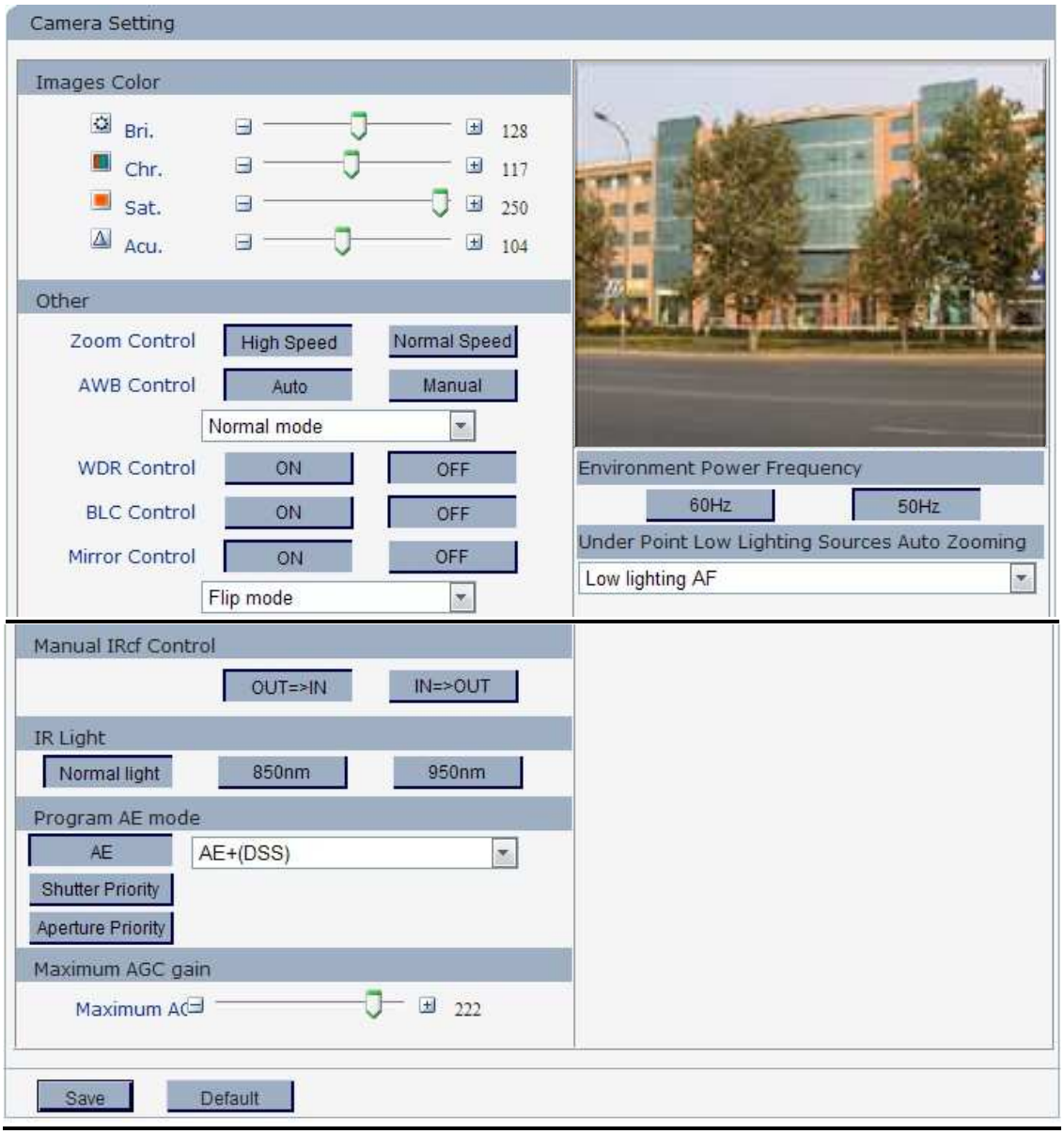


Figure 40（Hitachi 1080P）

[Images Color]: Adjust the Brightness, Chromatism, Saturation, Acutance, of video.

[Zoom Control]: You can choose high speed(3.5s) or normal speed(5.1s).

[AWB Control]: You can choose Manual AWB or Auto mode to adjust white balance.

White balance: Depending on the lighting conditions, a pure white in a photograph may appear slightly yellow or blue. The white balance control will help to eliminate unwanted colour bias. There are 3 modes:

[BLC Control]: To get better image effect, you can select BLC.

Back light compensation: When there is strong light behind the monitored objects, illumination compensation will be provided in the required range to get better image quality.

If select BLC,then **[WDR Control]** is hidden.

[WDR Control]: If you turn on WDR, you can't set [BLC Control].

Wide dynamic range: WDR is intended to provide clear images even under back light circumstances where intensity of illumination can vary excessively, namely when there are both very bright and very dark areas simultaneously in the field of view of the camera. WDR enables the capture and display of both bright and dark areas in the same frame, in a way that there are details in both areas, i.e. bright areas are not saturated, and dark areas are not too dark.

If select BLC,there are 5 modes:WDR,AD_WDR,WDR+Contrast offset, AD_WDR+Contrast offset, Contrast offset

If select BLC,then **[BLC Control]** is hidden..

[Mirror Control]: Set mirror, horizontally rotate the video. If select BLC,there 5 mode:Flip mode,Mirror mode,Vertical Inver mode.

[Manual IRcf Control]: Set the picture displayed color or black and white.

Note：If you choose the mode that with D/N automatically in [Program AE mode],you can't set [Manual IRcf Control] .

[IR Light]: You can choose normal light,850nm light or 950nm light.

If you choose the mode that with D/N automatically in [Program AE mode]，then **[IR Light]** is hidden.

[Program AE mode]: If you choose this mode,**[Manual IRcf Control]** is hidden. "Auto Ircf" display.It's range:1~255,**[IR Light]** is hidden

AE: AE mode,

AE mode+ D/N automatically+ high sensitivity mode

AE mode+ D/N automatically+ middle sensitivity mode

AE mode,slow shutter

AE mode,slow shutter+ D/N automatically+ high sensitivity mode

AE mode,slow shutter+ D/N automatically+ middle sensitivity mode

AE mode,slow shutter+ D/N automatically+ low sensitivity mode

Shutter Priority: You can obtain the value of aperture when shutter is defined manually control. It is used to shoot moving objects.

Aperture Priority: Set the value of aperture manually and can obtain the shutter speed.

Auto Gain Control: The average output signal level is fed back to adjust the gain to an appropriate level for a range of input signal levels. For example, without AGC the sound emitted from an AM radio receiver would vary to an extreme extent from a weak to a strong signal; the AGC effectively reduces the volume if the signal is strong and raises it when it is weaker. AGC algorithms often use a PID controller where the P term is driven by the error between expected and actual output amplitude.

[Maximum AGC gain]: Change the value of AGC .

[Environment Power Frequency]: In indoor environment, if the flashing of lamps results in the flickering of images, please choose 50HZ or 60HZ according to the power frequency.

[Under Point Low Lighting Sources Auto Zooming]: Enable or disable under point low lighting sources auto zooming.

Note：You can only select one mode in [program AE mode] at the sametime.

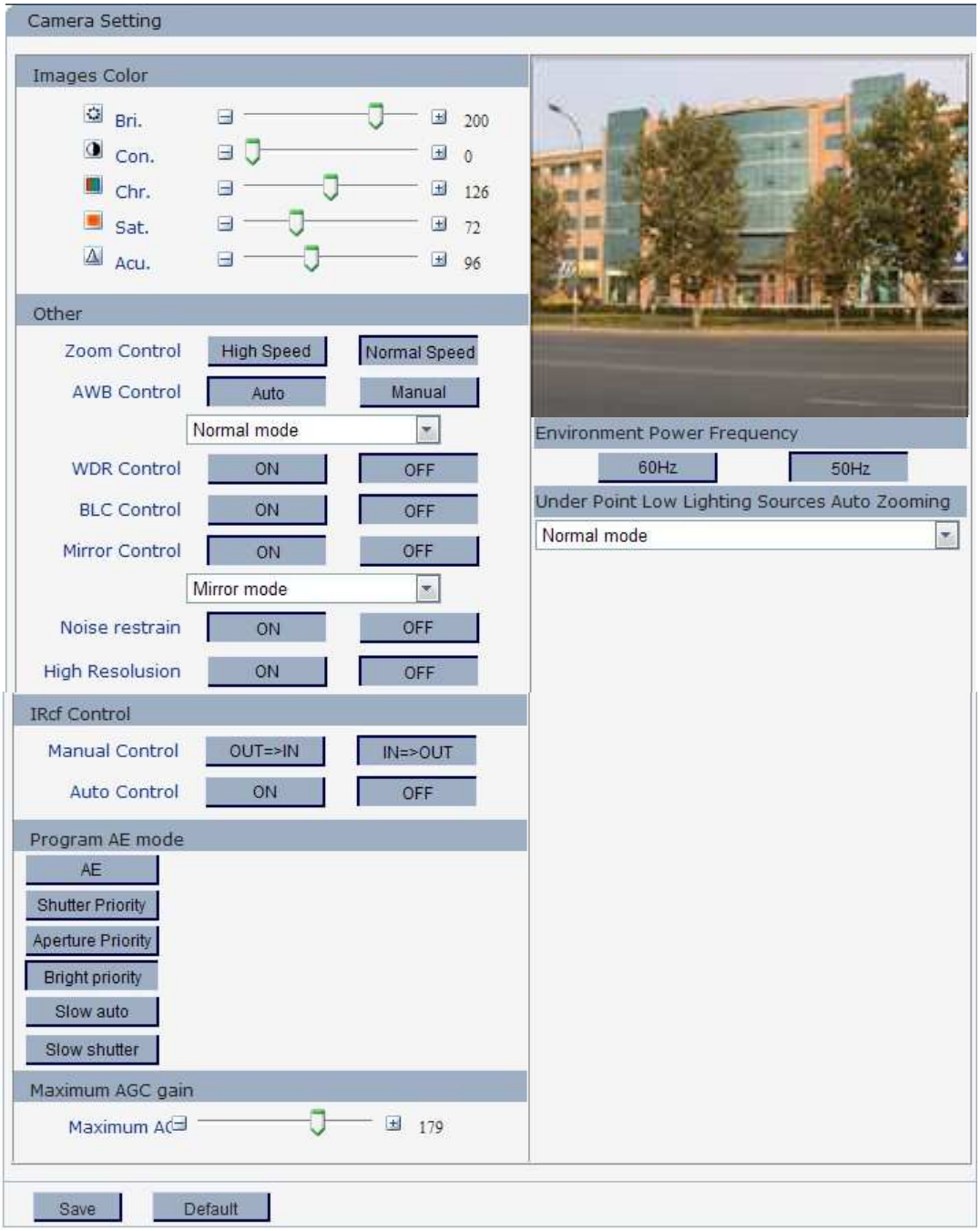


Figure 41（Sony 1080P）

[Images Color]: Adjust the Brightness, Chromatism, Saturation, Acutance, Contrast of video. If you want to adjust the Brightness,you must select **[Bright prionty]** in Program AE mode.

[Zoom Control]: You can choose high speed(3.5s) or normal speed(5.1s).

[AWB Control]: You can choose Manual AWB or Auto mode to adjust white balance.

White balance: Depending on the lighting conditions, a pure white in a photograph may appear slightly yellow or blue. The white balance control will help to eliminate unwanted colour bias.

[BLC Control]: To get better image effect, you can select BLC. If select BLC,then **[WDR Control]** is hidden.Back light compensation: When there is strong light behind the monitored

objects, illumination compensation will be provided in the required range to get better image quality.

[WDR Control]: If you turn on WDR, you can't set [BLC Control].

Wide dynamic range: WDR is intended to provide clear images even under back light circumstances where intensity of illumination can vary excessively, namely when there are both very bright and very dark areas simultaneously in the field of view of the camera. WDR enables the capture and display of both bright and dark areas in the same frame, in a way that there are details in both areas, i.e. bright areas are not saturated, and dark areas are not too dark.

[Mirror Control]: Set mirror, horizontally rotate the video. If select BLC,there 5 mode:Flip mode,Mirror mode,Vertical Inver mode.

[Noise restrain]: You can select ON, it can reduce the noise of camera image at night.

[High resolution]:

ON: Better solution, but S/N is worse.

OFF: It is the default mode, can keep S/N as the balance mode.

[IRcf Control]:

Manual Control: Manual set the picture displayed color or black and white.

Auto Control: Auto set the picture displayed color or black and white.

[Program AE mode]:

AE: Auto Exposure mode, Camera set the aperture and shutter value automatically

Shutter Priority: You can obtain the value of aperture when shutter is defined manually control. It is used to shoot moving objects.

Aperture Priority: Set the value of aperture manually and can obtain the shutter speed.

Brightness Priority:Select this mode,Brightness display in the**[Images Color]**,Set different levels corresponding to different aperture and gain value, at the same time ， only the shutter speed is automatically adjusted.

[Slow Auto]：Open Slow Auto, you can adjust the slow shutter speed in the speed drag bars

[Slow shutter]：Open Slow shutter, the camera will automatically reduce the shutter speed and improve the picture brightness at night.

[Maximum AGC gain]: Change the value of AGC .Range:1-255。

【Environment Power Frequency】 In indoor environment, if the flashing of lamps results in the flickering of images, please choose 50HZ or 60HZ according to the power frequency.

[Under Point Low Lighting Sources Auto Zooming]: Enable or disable under point low lighting sources auto zooming.

Note：You can only select one mode in [program AE mode] at the sametime.

5.2.6.2 PTZ Setting

See Figure 42 for the interface of "COM Setting":

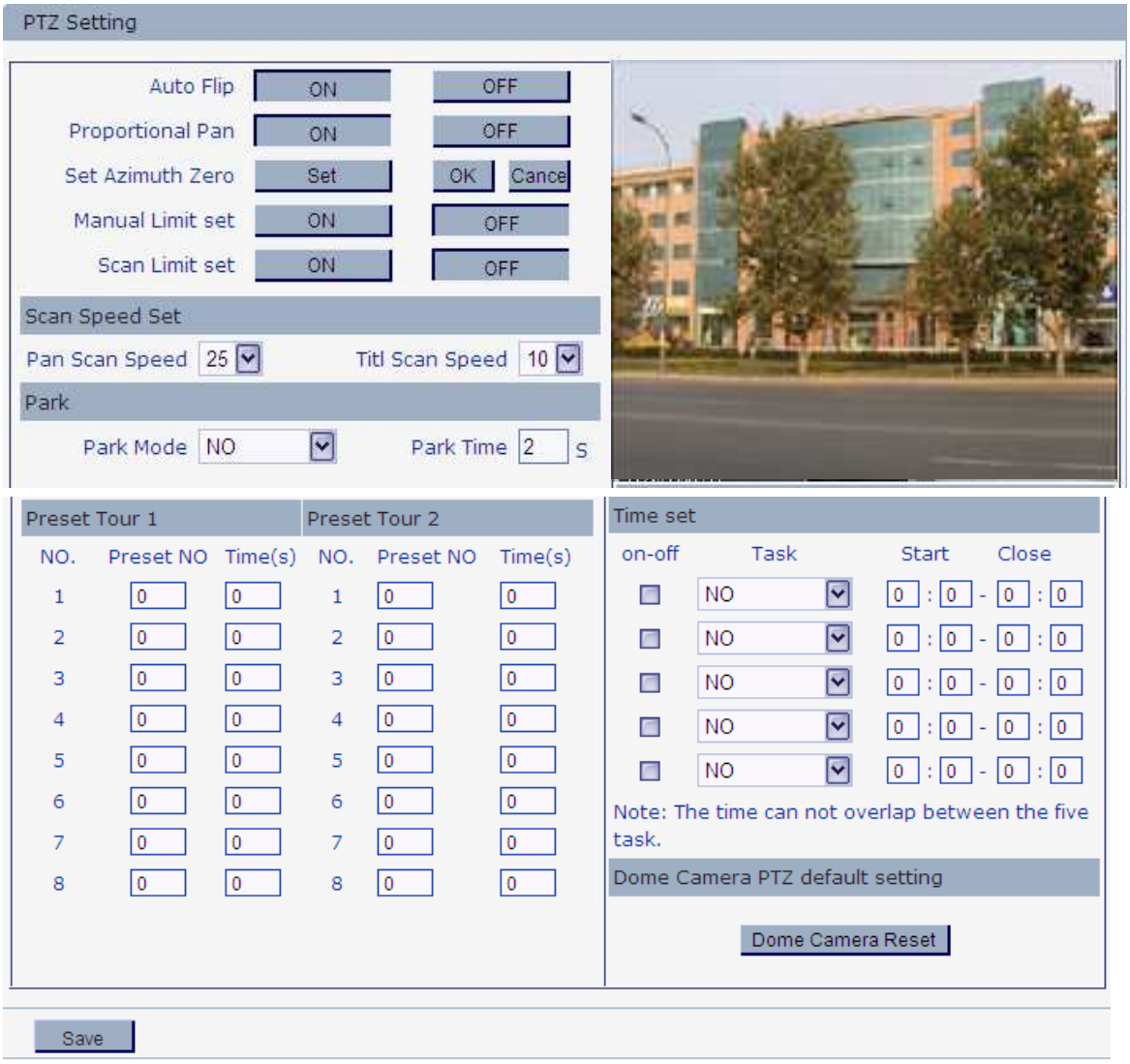


Figure 42

[Auto Flip]: Enable or disable auto flip .when the video rotated vertically, if you disable this function, dome camera won't continue when it moved to the maximum angle; If you enable this

function, when the dome camera rotated vertically to the maximum angle, it will be rotated horizontally 180^0,after that, it will continue to rotated vertically.

[Proportional Pan]: Enable or disable proportional pan. If the function is disabled, you can drag the speed change lever to change the PTZ speed; If you enable the function, the speed of PTZ will be changed according to the proportional, the bigger proportional, the lower speed of PTZ.

[Set Azimuth Zero]: If you set azimuth zero, the device will be rotated to there after power on and tests by itself when click this button. If you delete the azimuth zero, it will be rotated to the machine zero.

[Manual Limit set]: Enable or disable the manual limit set. The dome can be only rotated in the range as you set if enable this function.

[Scan Limit set]: Enable or disable the scan limit set. If you enable this function, the dome can be only rotated in the range as you set when it is scanning.

[Scan Speed Set]:

Pan Scan Speed:1-40^0/s

Tilt Scan Speed:1-20^0/s

[Park]:

Park Mode: You can set what you want the dome to do when it is in park mode.

Park Time: 2-60min.If you set it as 3min,it means when there is no task for dome, after 3min it will start park mode.

Note：The priority of task that set in [Time set] is higher than that of [Park]. For example, the demo is doing the task that set in [Park] when enable task in [Time set], it will stop and turn to the latter.

[Preset Tour]: You can set two preset tours, each of them can include 8 presets, and can set stay time for each preset.

[Time set]:

On-off: Enable or disable the time set.

Task: Set the tasks that you want the dome to do.

Start/Close:Set the start and close time.

Note：

- **The time can not overlap between the five tasks.**
- **The priority of operating manually is higher than tasks that set in [Time set].For example, the demo is doing the task that set in [Park] while the PTZ is operated manually, then it will stop and turn to the latter. When you stop to control the PTZ, the former will be recovered automatically after 30s.**

[Dome Camera PTZ default setting]: PTZ parameters will be recovered as factory setting values.

5.2.7 System Setting

5.2.7.1 System Info

See Figure 43 for the interface of "System Info":

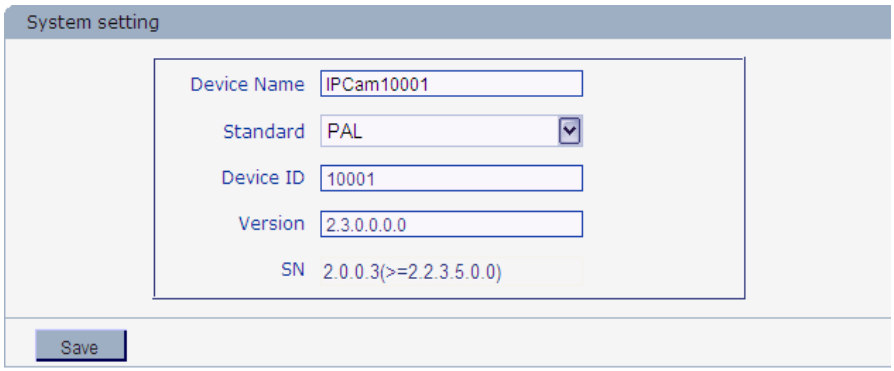


Figure 43

[System Info]:Display device name,standard,device ID,version,you can define the device name.

After setting all the parameters, click [save] to make the parameters valid.

5.2.7.2 System Time

See Figure 44 for the interface of "System Time":

Figure 44

[System time Setting]:You can choose the proper time zone.

Update via NTP Server: After starting the function, switch on NTP switch and select time zone, save it to turn to [Liveview], the system time that has been automatically corrected by NTP server can be displayed.

Synchronize with Local Computer: After starting the function, the date and time of IP camera will be synchronized with the PC.

Set the Time Manually: If you select this option, you can modify the time in [System time].

After setting all the parameters, click [save] to make the parameters valid.

5.2.7.3 User Manage

See Figure 45 for the interface of "User Manage":

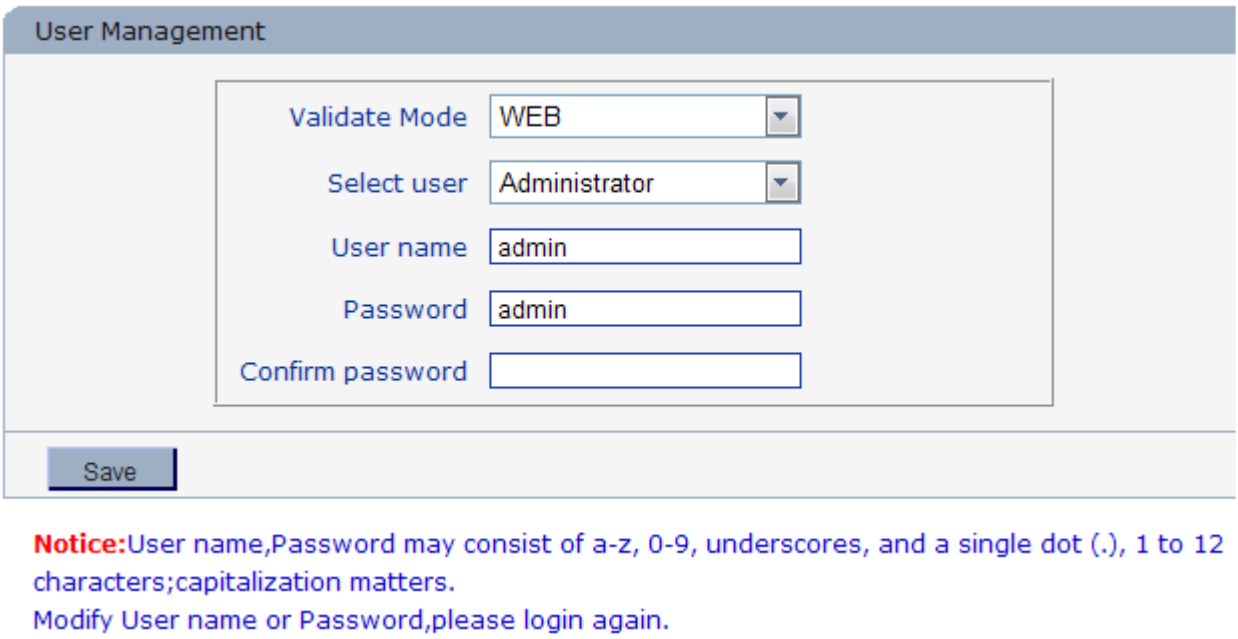


Figure 45

[Validate Mode]: You can select WEB or Digest mode.

You can set three users for every camera, one is Administrator, the others are general users.

Administrator authority: can operate and set all functions and parameters of IP camera

General user authority:

(1) can perform operations like snapping, recording, playback, talkback, monitoring, alarm clearing, log searching, zooming and full-screen reviewing;

(2) Can perform operations like visit setting, image lightness and color adjustment, PTZ and lens control, etc.

Default user name of administrator: **admin**	Password: **admin**
Default user name of general user: **user 1 \user 2**	Password: **user 1 \user 2**
Note: user name and password are case sensitive	

Notice：User name and password must be 1-15-character-strings consisted by letters, numbers, underlines or dots. The characters are case sensitive.

5.2.7.4 Upgrade

See Figure 46 for the interface of "Upgrade":

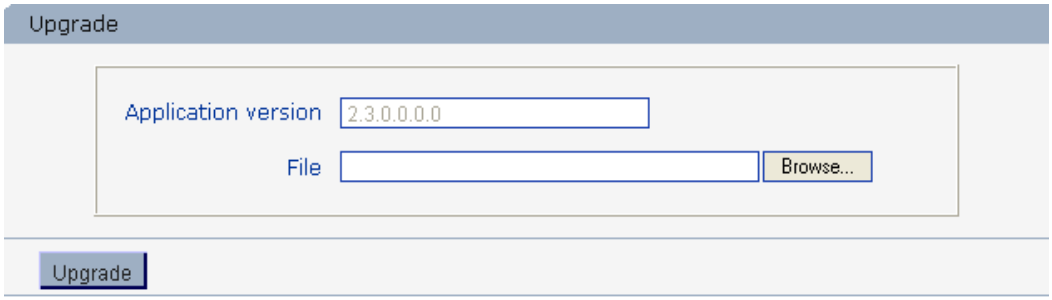


Figure 46

Click "Browse" button, and select correct file of upgrade (kernel file, suffix.uot),click [upgrade], then you can upgrade your system, the completion rate will be displayed during this process. After upgrade completes, IP camera will restart automatically. Re-log in device, enter into system settings page, check to see whether the kernel edition is the upgraded edition. For example: kernel edition of the current IP camera is (V2.3.1.0), the latest edition obtained from supplier is (V2.3.1.2), then the kernel edition after upgrade should be V2.3.1.2.

Notice：

1. **Don't cut off the power and internet connection while upgrading.**
2. **If you use win7 system, please set IE parameters before upgrade. Open the IE browser, click Ineternet Option into the "Security" page, click the "Custom Level"—Security—Custom—Miscellaneous—Include local directory path when uploading files to a server—Enable.**

3. For the V2.3.1.2 versions ,Please upgrade "uwe." file frist，then upgrade "uot."file .

5.2.7.5 Restore

See Figure 47 for the interface of "Restore":

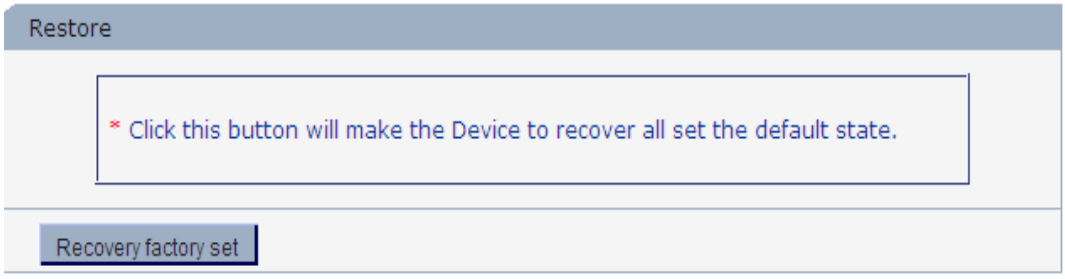


Figure 47

All device parameters (including network parameters, excluding physical address) will be recovered as factory setting values.

5.2.7.6 Reboot

See Figure 48 for the interface of "Reboot":

Figure 48

Click [Reboot],it will pop up a box, enter the password,the IP camera will restart.

Appendix 1 Network Interface of IP Camera

The default network ports of IP camera are:

TCP	80	Web port
	5000	Communication port, audio/video data transmission port, talkback data transmission port
UDP	5000	Audio/video data transmission port
Multi-cast port	Multicast original port + channel number	

Appendix 2 Default Network Parameters

Default network parameters

Cabled Network:
IP Address: 192.168.55.160 Data Port: 5000
Subnet mask: 255.255.255.0 Web Port: 80
Gateway: 192.168.55.1 DHCP: Off
Wireless Network:
IP Address: 192.168.1.160 Frequency: Auto
Gateway: 192.168.1.1 Mode: Auto
Subnet mask: 255.255.255.0

Appendix 3 Apply for DDNS domain name service

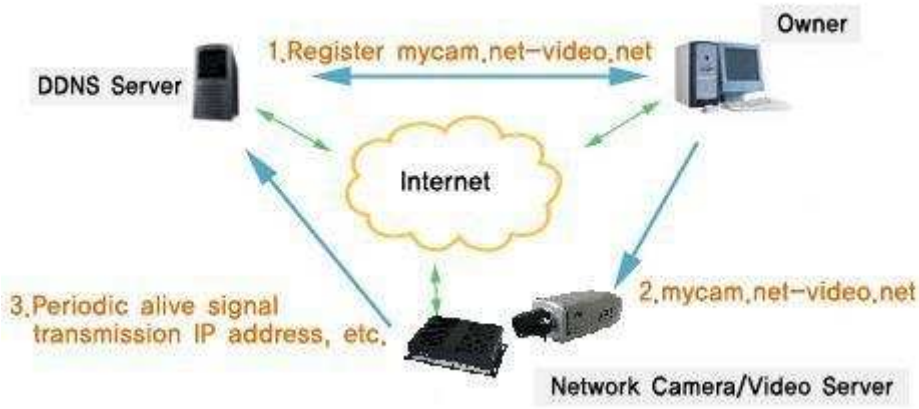
1 IP camera DDNS introduction

➢ DDNS function of IP camera

DDNS (Dynamic Domain Name Service) refers to the real-time analysis of a fixed domain name and the dynamic public IP address of the IP camera.

With this function, all Internet users can visit the IP camera via a fixed domain name.

➢ The DDNS process of IP camera is as follow:

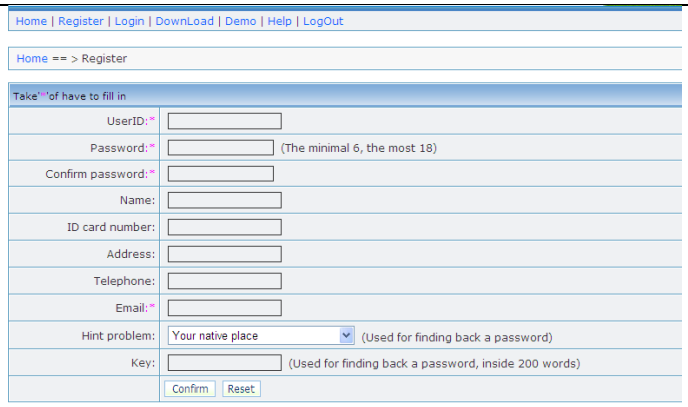


The DDNS process flow diagram of IP camera

2 Apply for DDNS domain name service

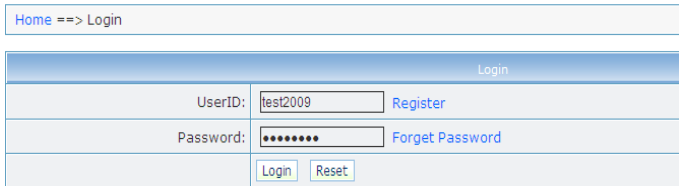
Step 1: Sign up

Users need to sign up to manage and inquire about domain name status when using this dynamic domain name management system for the first time. Visit DDNS server (http://www.mvddns.net) to sign up. See the picture below:


Home | Register | Login | DownLoad | Demo | Help | LogOut
Home == > Register
Take'*'of have to fill in
UserID:*
Password:* (The minimal 6, the most 18)
Confirm password:*
Name:
ID card number:
Address:
Telephone:
Email:*
Hint problem: Your native place (Used for finding back a password)
Key: (Used for finding back a password, inside 200 words)
Confirm Reset

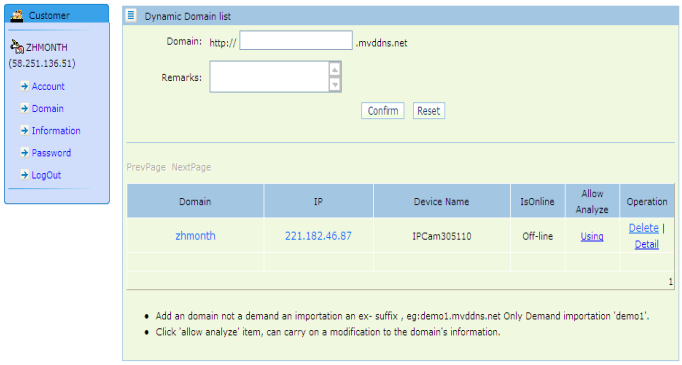
Step 2: User login

Enter registered user name and password, click "login" to enter into domain name management interface as follow:



Step 3: Domain name registration

A domain name must be registered first, then put into use. Click "Domain name management", a page appears as follow:



Register and submit the domain name to be used. For example: "test.mvddns.net".

Appendix 4 Visit IP camera under different network environments

You can visit IP camera with your PC via LAN or WAN, the following contents will tell you how to use IP camera under different network environments.

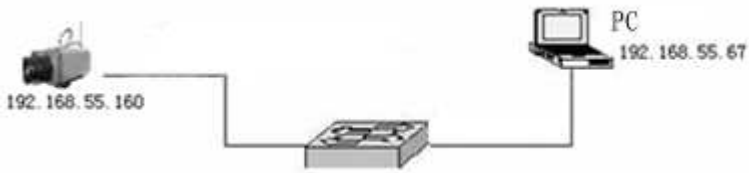
1 LAN

There are two ways to connect IP camera to LAN: static IP and dynamic IP

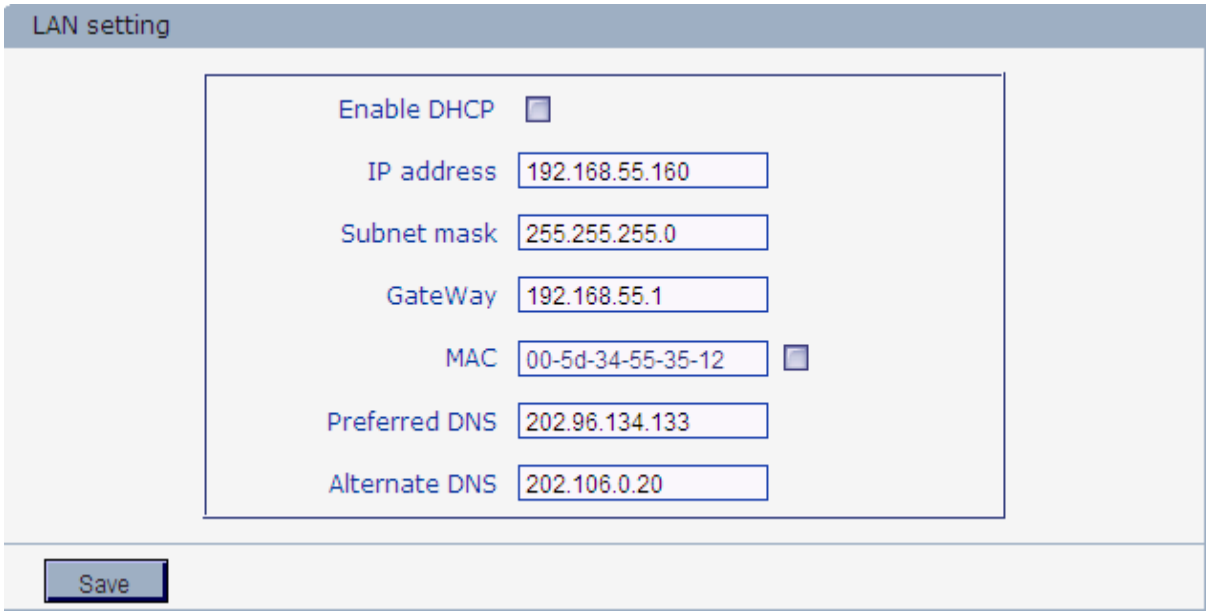
- Static IP

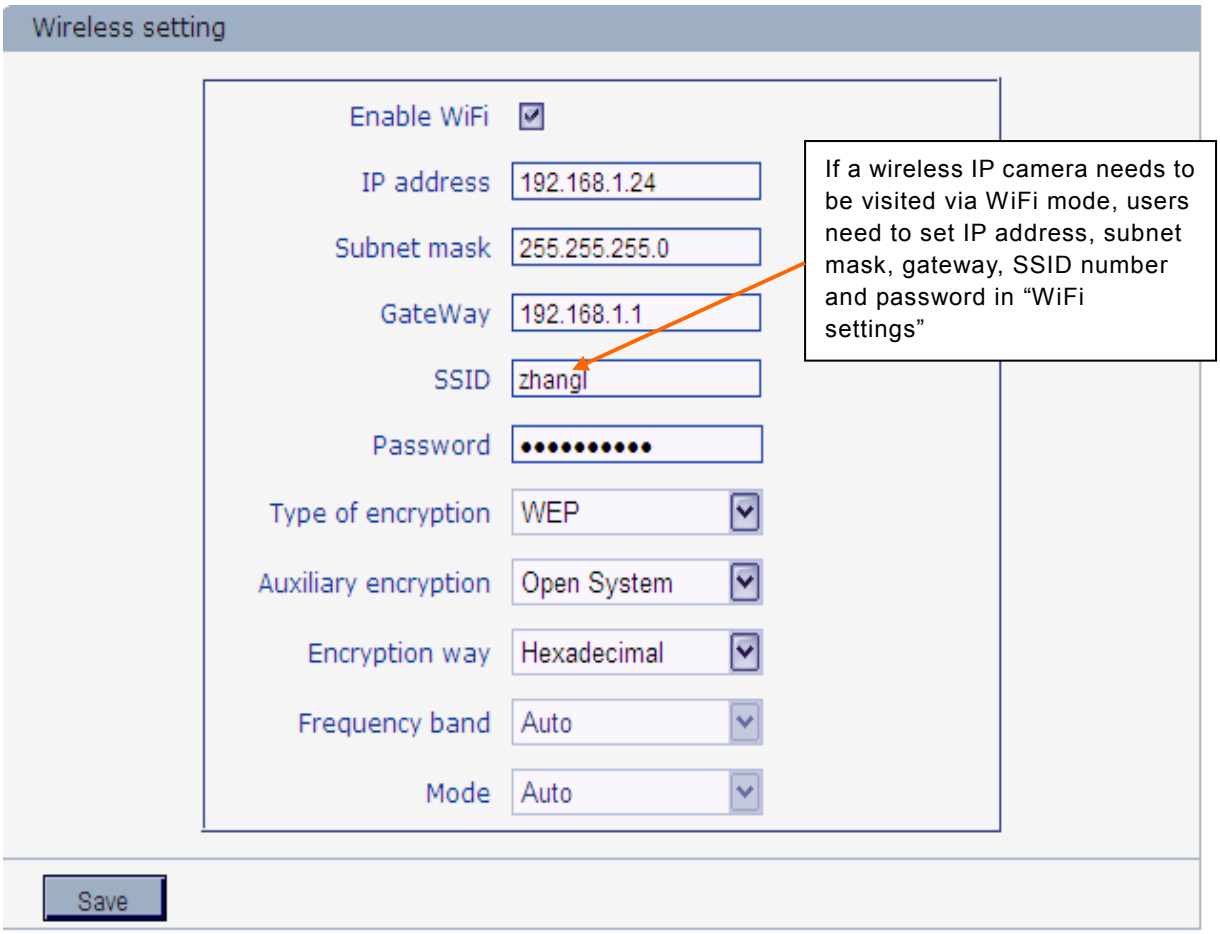
Static IP means that Your network administrator assigns a LAN IP address to IP camera. The IP of your PC and IP camera must be in the some network segment to make visiting to the camera possible.

See below picture for the network topology:



Please refer to below picture for the network settings:





Setup steps:

Step 1: Log in IP camera via the IE browser (the default IP is 192.168.55.160).

Step 2: Switch to the page [network settings], fill in the device IP address assigned by network administrator in to [Basic Parameters], e.g. 192.168.55.160;

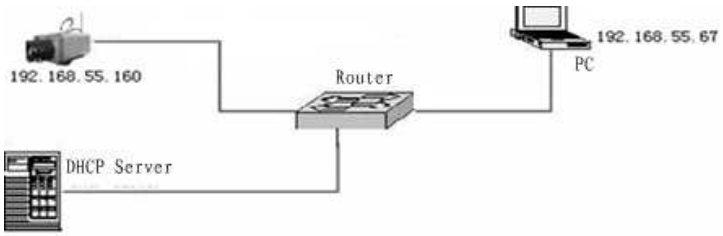
Step 3: Fill in subnet mask, default value is 255.255.255.0;

Step 4: Fill in gateway address, default value is 255.255.255.0;

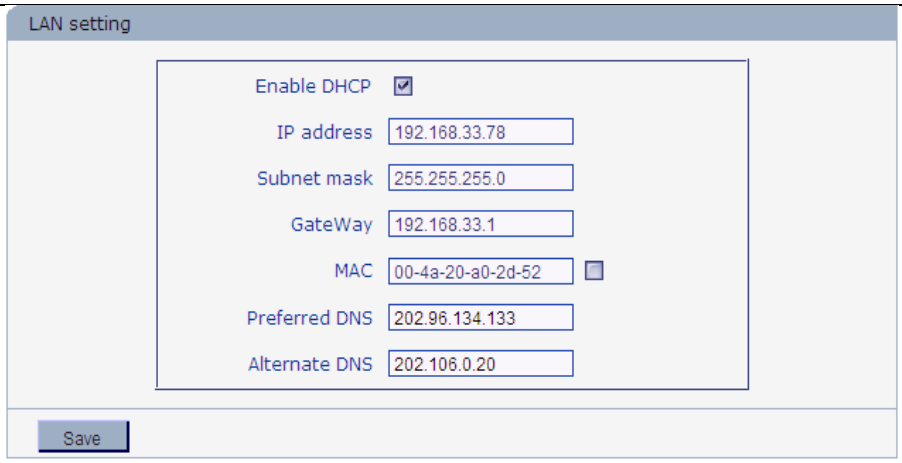
Click [Save] to save the parameters. Start the device, enter its IP address into IE browser to visit it.

➢ Dynamic IP

Dynamic IP means that IP camera obtains IP address from DHCP server. See below picture for the network topology:



Please refer to below picture for the network settings:



Log in IP camera via IE, turn to [Network Settings] and check [Enable DHCP].

After setting all the parameters, click [save] and restart to make the parameters valid.

2 Internet

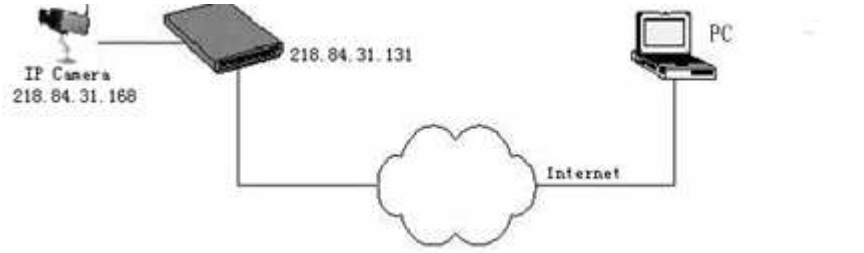
You have three ways to connect IP camera to Internet:

- Fixed IP mode;
- Broadband and router sharing Internet access mode (dynamic obtainment of extranet IP address mode) like ADSL and so on;
- PPPoE dial-up access.

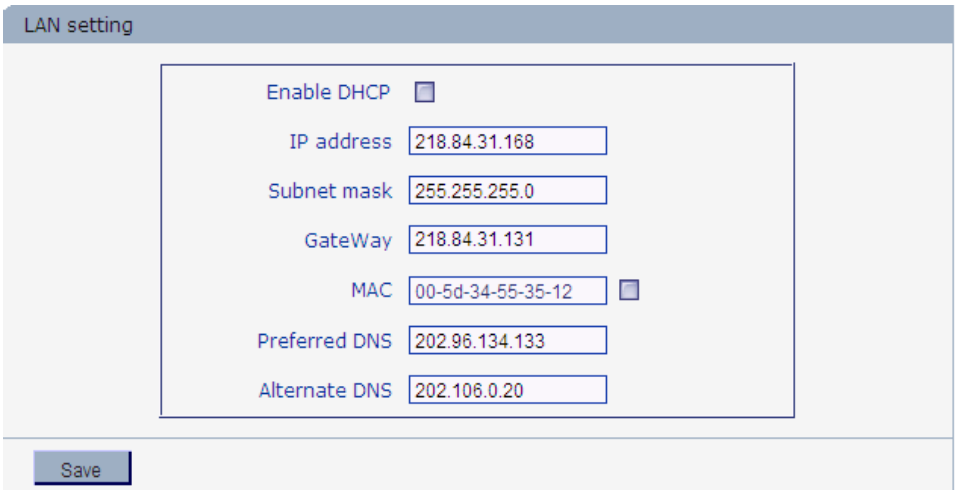
After IP camera is connected to Internet, remote Internet users can visit it directly via domain name or IP address.

➢ Fixed IP mode

See below picture for the network topology:



Please refer to below picture for the network settings:



Setup steps:

Step 1: Log in IP camera via crossover cable direct connection.(For details, please refer to [Hardware Installation])

Step 2: Switch to the page [network settings], fill in the device IP address requested from network service provider in to [Basic Parameters], e.g. 218.84.31.168;

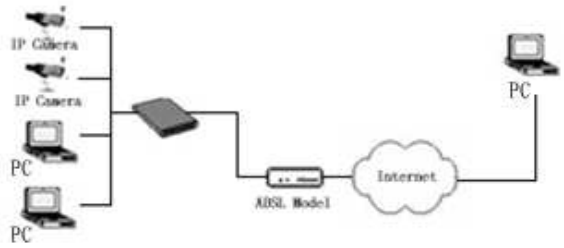
Step 3: enter correct subnet mask, e.g. 255.255.255.192;

Step 4: enter correct gateway, e.g. 218.84.31.131;

After setup completes, click [Save] and restart the device, then connect it to public network so that all Internet users can visit the IP camera remotely via entering http://218.84.31.168 to IE browser.

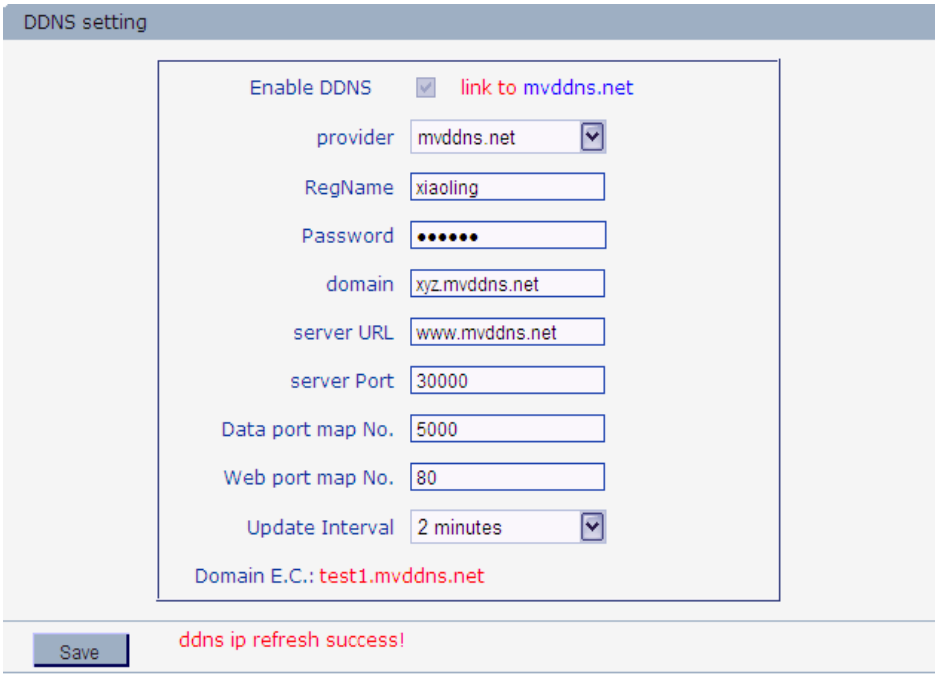
➢ Broadband and router sharing Internet access mode (dynamic obtainment of extranet IP address mode) like ADSL and so on;

For dial-up access with router, see below picture for the network topology:



Users can set up DDNS domain name service at the same time. Fills the username and password which were applied in the DDNS server into the DDNS setting item, implement port mapping from the router. The router determines and points to the IP camera that need to be visited according to different ports, long-distance Internet user can visit the IP camera on the network via domain name directly.

Please refer to below picture for the network settings:



DDNS setup steps:

Step 1: Log in DNNS server (e.g.http://www.mvddns.net), register user account and password.(For details, please refer to Appendix 3)

Step 2: Click to open DDNS;

Step 3: Select DDNS service provider, e.g. mvddns.net;

Step 4: Fill in the registration name to log into DDNS server;

Step 5: Fill in the registration password to log into DDNS server;

Step 6: fill in the domain name applied on DDNS server, e.g. test.mvddns.net;

Step 7: Fill in DDNS server address, e.g.www.mvddns.net;

Step 8: fill in the port of DDNS server, default value is 30000 (users are recommended not to change it);

Step 9: fill in the port number of public network data after mapping, the default port is 5000.If several IP cameras are connected to one router, different web ports need to be specified for each device, and port mapping needs to be done for every specified port.

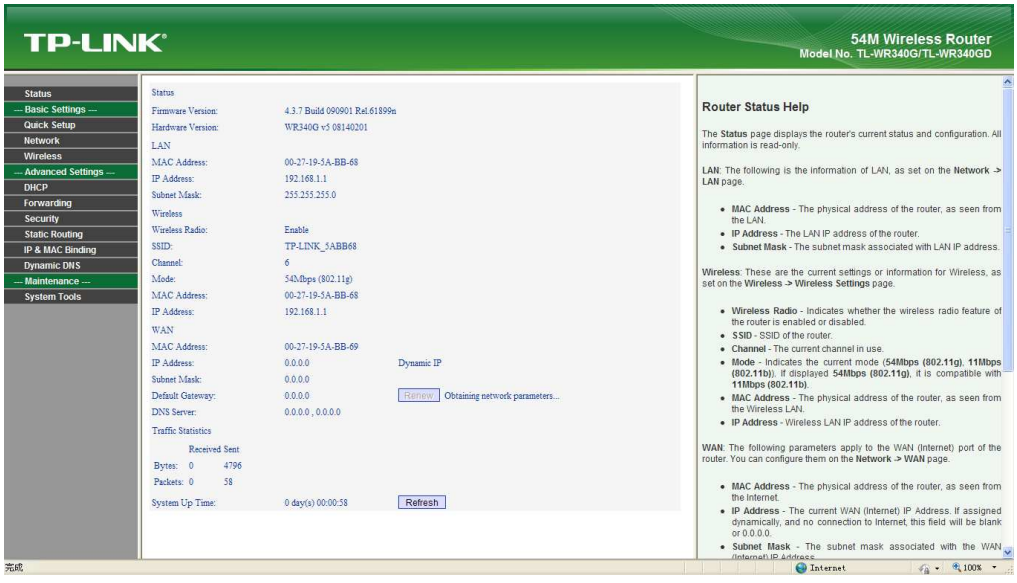
Step 10: fill in the port number of public network web after mapping, the default port is 80.If several IP cameras are connected to one router, different web ports need to be specified for each device, and port mapping needs to be done for every specified port.

After setting all the parameters, click [save] and restart to make the parameters valid.

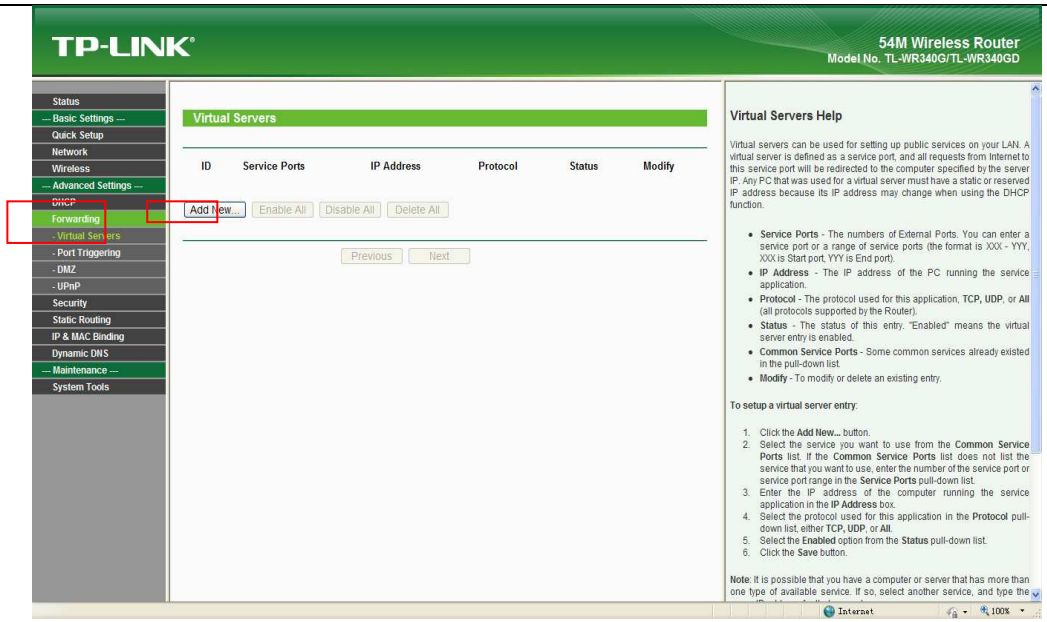
Port mapping setup steps:

Take the TL-WR340G router of TP-LINK as an example for illustration:

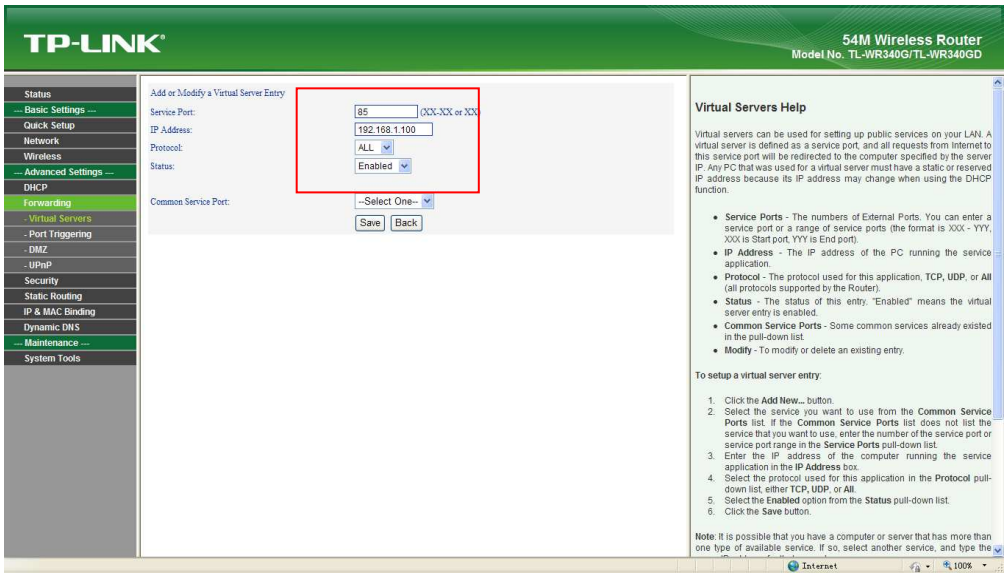
Step 1: Ask network administrator for the IP address of the router (i.e. LAN gateway address), login user name and password, then log in the router. The main interface is as follow:


TP-LINK
54M Wireless Router
Model No. TL-WR340G/TL-WR340GD
Status
--- Basic Settings ---
Quick Setup
Network
Wireless
--- Advanced Settings ---
DHCP
Forwarding
Security
Static Routing
IP & MAC Binding
Dynamic DNS
--- Maintenance ---
System Tools
Firmware Version: 4.3.7 Build 090901 Rel.61899n
Hardware Version: WR340G v5 08140201
LAN
MAC Address: 00-27-19-5A-BB-68
IP Address: 192.168.1.1
Subnet Mask: 255.255.255.0
Wireless
Wireless Radio: Enable
SSID: TP-LINK_5ABB68
Channel: 6
Mode: 54Mbps (802.11g)
MAC Address: 00-27-19-5A-BB-68
IP Address: 192.168.1.1
WAN
MAC Address: 00-27-19-5A-BB-69
IP Address: 0.0.0.0 Dynamic IP
Subnet Mask: 0.0.0.0
Default Gateway: 0.0.0.0 Renew Obtaining network parameters...
DNS Server: 0.0.0.0 , 0.0.0.0
Traffic Statistics
Received Sent
Bytes: 0 4796
Packets: 0 58
System Up Time: 0 day(s) 00:00:58 Refresh
Router Status Help
The Status page displays the router's current status and configuration. All information is read-only.
LAN: The following is the information of LAN, as set on the Network -> LAN page.
MAC Address - The physical address of the router, as seen from the LAN.
IP Address - The LAN IP address of the router.
Subnet Mask - The subnet mask associated with LAN IP address.
Wireless: These are the current settings or information for Wireless, as set on the Wireless -> Wireless Settings page.
Wireless Radio - Indicates whether the wireless radio feature of the router is enabled or disabled.
SSID - SSID of the router.
Channel - The current channel in use.
Mode - Indicates the current mode (54Mbps (802.11g), 11Mbps (802.11b)). If displayed 54Mbps (802.11g), it is compatible with 11Mbps (802.11b).
MAC Address - The physical address of the router, as seen from the Wireless LAN.
IP Address - Wireless LAN IP address of the router.
WAN: The following parameters apply to the WAN (Internet) port of the router. You can configure them on the Network -> WAN page.
MAC Address - The physical address of the router, as seen from the Internet.
IP Address - The current WAN (Internet) IP Address. If assigned dynamically, and no connection to Internet, this field will be blank or 0.0.0.0.
Subnet Mask - The subnet mask associated with the WAN
Internet
100%

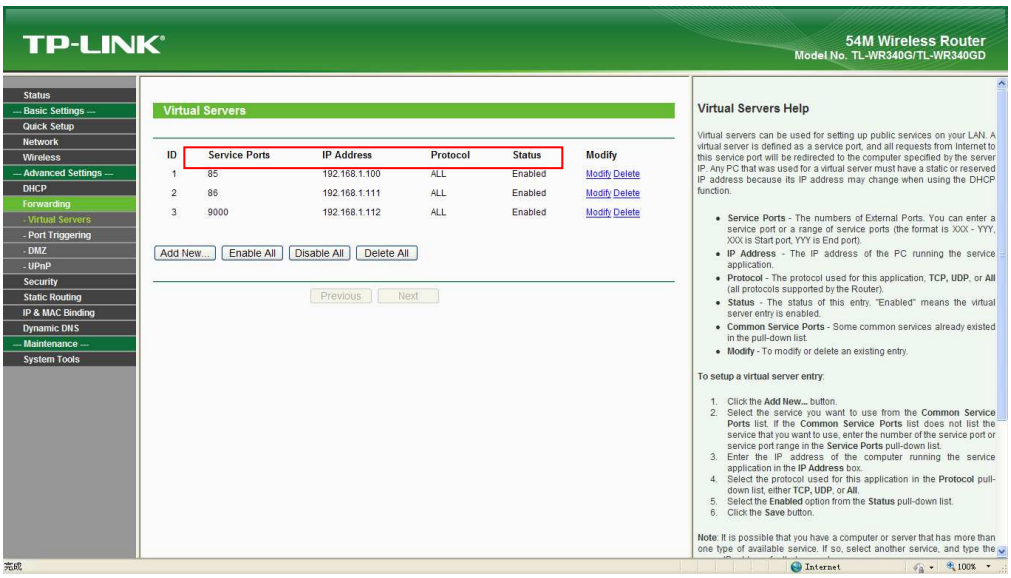
Step 2: Open "Forwarding", select "Virtual Servers" as below picture shows:


TP-LINK
54M Wireless Router
Model No. TL-WR340G/TL-WR340GD
Status
--- Basic Settings ---
Quick Setup
Network
Wireless
--- Advanced Settings ---
DHCP
Forwarding
- Virtual Servers
- Port Triggering
- DMZ
- UPnP
Security
Static Routing
IP & MAC Binding
Dynamic DNS
--- Maintenance ---
System Tools
Virtual Servers
ID
Service Ports
IP Address
Protocol
Status
Modify
Add New...
Enable All
Disable All
Delete All
Previous
Next
Virtual Servers Help
Virtual servers can be used for setting up public services on your LAN. A virtual server is defined as a service port, and all requests from Internet to this service port will be redirected to the computer specified by the server IP. Any PC that was used for a virtual server must have a static or reserved IP address because its IP address may change when using the DHCP function.
Service Ports - The numbers of External Ports. You can enter a service port or a range of service ports (the format is XXX - YYY, XXX is Start port, YYY is End port).
IP Address - The IP address of the PC running the service application.
Protocol - The protocol used for this application, TCP, UDP, or All (all protocols supported by the Router).
Status - The status of this entry. "Enabled" means the virtual server entry is enabled.
Common Service Ports - Some common services already existed in the pull-down list.
Modify - To modify or delete an existing entry.
To setup a virtual server entry:
1. Click the Add New... button.
2. Select the service you want to use from the Common Service Ports list. If the Common Service Ports list does not list the service that you want to use, enter the number of the service port or service port range in the Service Ports pull-down list.
3. Enter the IP address of the computer running the service application in the IP Address box.
4. Select the protocol used for this application in the Protocol pull-down list, either TCP, UDP, or All.
5. Select the Enabled option from the Status pull-down list.
6. Click the Save button.
Note: It is possible that you have a computer or server that has more than one type of available service. If so, select another service, and type the

Step 3: Select "Add New Items", enter the IP address of the IP camera (e.g.192.168.1.100), port (e.g. 85), status (valid) and other information, click save, see below picture:



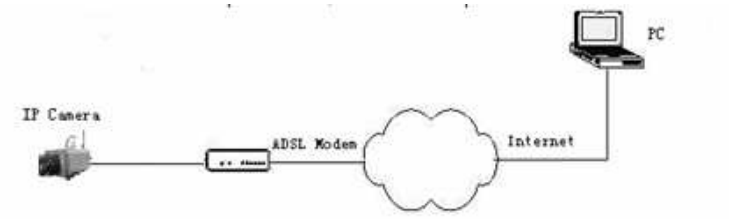
Step 4: After save successfully, below screen appears:



Step 5: If DDNS is successfully set in "Network Settings" of IP camera, direct visit to the IP camera can be realized via entering http://test.mvddns.net:85 into IE browser.

➢ PPPoE dial-up access

For IP camera dial-up access, see below picture for the network topology:



Setup steps:

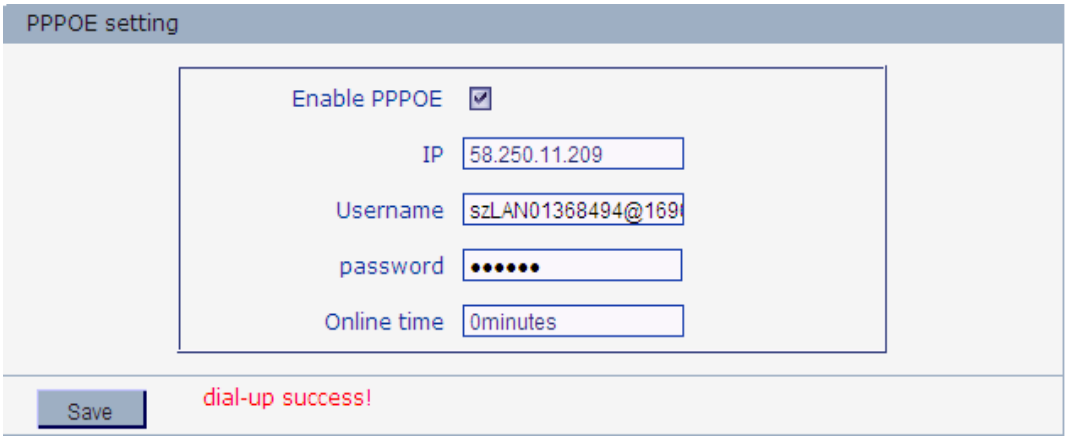
Step 1: Log in IP camera via crossover cable direct connection.(For details, please refer to [Hardware Installation])

Step 2: Set PPPoE parameters.(for details, please refer to [PPPOE settings])

Step 3: Connect IP camera to Internet.

Step 4: If DDNS service is successfully set for the device, the device can be visited via entering domain name into IE browser.

See below picture for PPPoE settings:



Appendix 5 HD IP camera Special Preset points Function

Preset	Description
33	Flip
34	Turn to zero
35	Start figure scan 2
81	D/N automatically
82	Manual D/N automatically on（Black）
83	Manual D/N automatically off（Color）
84	WDR on
85	WDR off
86	BLC on
87	BLC off
88	Video freeze on
89	Video freeze off
90	Up limit
91	Dowm limit
92	Left limit
93	Right limit
94	Exit menu
95	Enter menu
96	Stop scan
97	P&T Scan
98	Start figure scan 1
99	Start auto scan
100	Resume Function, Record the position (Users can not use)
101	P&T Scan 1, Record the starting position (Users can not use)
102	P&T Scan 2, Record the starting position (Users can not use)

Appendix 6 FAQs

1、 Forget Password

Solution: There is a [RESET] button on the back panel of the IP camera, press it 3 times to restore all default parameters (Factory Settings), user name and password are both "admin".

Notice：

1、Please don't press RESET if you are not a professional operator. After reset, all parameters will restore factory settings (except for the physical network address).

2、RESET method：

- **Press [RESET] button 3 times in 2 ~15 second**
- **Between Push buttons and Release Button，must be an interval of 0.5 seconds**

2、IP camera audio/video function fails after abnormalities or abnormal power cut occur during upgrade, core edition is V4.0.0.0 (Backup file)

Solution: Connect the power cord and network cable of IP camera, press on RESET button and release it after 10 seconds, system will run the back-up programme automatically. After enter into the back-up programme, upgrade system. After upgrade completes, the IP camera will work normally. The back-up programme offers only upgrade and parameter setup functions, audio and video functions are not available.

3、No video image displayed in IE browser

Possible reason: ActiveX not installed

Solution: ActiveX must be installed when visiting IP camera for the first time via Internet Explore.

How to install: Visit IP camera, click [Download Address], file download dialog will pop up, select [Run] or [Save] to download. After download finishes, installation interface will pop up, click "install", the installation of ActiveX will start automatically, "Register OCX success" dialog box will pop up to remind the completion of installation process.

4、Fail to visit IP camera via IE after upgrade

Solution: Delete the caching of Browser.

Steps: Open IE—click "Tools"—select "Internet Options"—click "delete files" button in "Internet temporary files", select "delete all offline contents", then click "OK" and re-log in IP camera.

5、The images do not flow

Possible reason 1: The frame rate of IP camera is too low.

Solution: Increase the video frame rate

Possible reason 2: Too many users are viewing the images.

Solution: Block some clients or reduce the video frame rate.

Possible reason 3: The bandwidth is low.

Solution: Reduce video frame rate or video compression bitrate.

6、Fail to visit IP camera via IE browser

Possible Reason 1: Network is disconnected.

Solution: Connect your PC to network, checking whether it works properly or not. Check whether there is cable failure or network failure caused by PC virus, until PCs can be connected with the command of Ping.

Possible reason 2: IP Address has been occupied by other devices

Solution: Stop the connection between IP camera and Network, hook up IP camera to PC separately, reset IP address according to the proper operations recommended.

Possible reason 3: IP addresses are in different subnets.

Solution: Check IP address, subnet masking address of the DVS and the settings of Gateway.

Possible reason 4: Physical address of network conflict with IP camera

Solution: modify the physical address of IP camera.

Possible Reason 5: Web port has been modified

Solution: Contact Network Administrator to obtain related information.

Possible Reason 6: Unknown

Solution: Press RESET to restore default settings then connect it again, the default IP address is 192.168.55.160, subnet mask is 255.255.255.0

7、There is no sound while monitoring

Possible Reason: No audio input connection

Solution: Check audio connection of the host

Possible Reason 2: the audio option of IP camera is off

Solution: Check audio parameter settings to see if you have opened the audio.

8、Search NVS software cannot find device

Possible reason: Search NVS software adopts multicast protocol to perform searching. But the firewall forbids multicast data packet.

Solution: disable the firewall.

9、Image processing doesn't work properly

Possible Reason 1: system issue, DirectX function is disabled, which will cause slow display of images and abnormal color.

Possible Reason 2: hardware issue, graphics card doesn't support image acceleration and hardware zooming functions.(For hardware issue, the only solution is to replace graphics card)

Solution: install DirectX image drive, then Start→Run→input "DXDIAG" as follows:

Notice：Enable DirectDraw speedup, Direct3D speedup, AGP veins speedup in DirectX function. If they can not be enabled, that means DirectX installation fails or hardware not supportive.

END